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Executive Summary

Pursuant to a post-trial order entered in the case of *Dockery v. Hall*, I was asked by the National Prison Project of the American Civil Liberties Union, the Southern Poverty Law Center, and Covington & Burling LLP to opine on whether the dangerous medical care conditions at the East Mississippi Correctional Facility ("EMCF") that I described in my reports of 2014 and 2016, and to which I testified in March 2018, persist. I have concluded that, while some deficiencies at EMCF have improved, the legion of dangerous conditions I described in my 2016 report largely remain, and there are now many new, serious problems that I did not observe previously.

Two aspects of medical care delivery at EMCF are better than they were in 2016. First, some aspects of the practice of the new Site Medical Director, Dr. Patrick Arnold, are less dangerous than those of his predecessor; however – as I explain elsewhere – his practice is still not safe. Second, there appear to be fewer fires in Housing Unit 5, but they continue to occur there on a regular basis and elsewhere. Finally, though not strictly speaking an aspect of medical care delivery, EMCF is generally cleaner than it was in the past.

However, at least twelve aspects of medical care delivery at EMCF are equally deficient or worse than they were in 2016:

- **First**, patients continue to lack means to access urgent care in emergency situations, and as a result, patients must often kick, scream, or set fires to receive urgent medical attention.

- **Second**, patients continue to lack adequate access to non-urgent care. Patients lack a confidential way to access non-urgent care, and access is also frequently delayed, because appointments are not scheduled in a timely manner or are cancelled for unacceptable reasons.

- **Third**, patients continue to miss chronic care appointments for unacceptable reasons and records do not accurately reflect the reason for missed appointments.

- **Fourth**, Dr. Arnold and the nurses at EMCF fail to provide health care consistent with what is expected of a health care provider. In some instances, their care appears to have worsened. For example, the rate of deaths at EMCF has increased. In the 3 years between July 2013 and July 2016 – the period covered by my prior reports – there were 7 deaths at EMCF.[1] In the 0.75 years covered by my current report, there were 6 deaths. Thus, currently, the death rate is equivalent to 24 deaths in a 3-year period as compared to 7 deaths in the previous 3-year period I studied – a more than three-fold increase[2]. Notably, for every one of the recent 6

[1] The data for this continuous 3-year period comes from 3 sources: data considered for my 2014 and 2016 reports, and the Listing of Inmate Deaths in Custody of EMCF Offenders, DEF-032270.
[2] While there has been a small increase in the population of the prison, that increase has only a negligible effect on this comparison.

deaths, errors committed under the EMCF health care system possibly caused or contributed (and in two cases, the errors *likely* caused or contributed) to the deaths.

- **Fifth**, the review of deaths at EMCF – referred to as a mortality review – is now even more cursory. Mortality reviews are widely viewed in the medical science community as a key tool for identifying system errors so that those errors can be repaired to prevent future deaths. But all of the mortality reviews I received ignored serious errors and were even less detailed than the report I reviewed in the past. At a minimum, these barren reviews reflect a complete indifference to determining why these men died and how to avoid potentially lethal errors in the future.

- **Sixth**, nursing staff's failure to provide medications to patients has dramatically worsened. Records I reviewed reflected repeated failures to provide critical medication – such as insulin – to patients, presenting a grave risk to patient health. Even when nurses do provide medications, they are doing so outside safe times and methods. And several entries in the records I reviewed appear to be falsified or, at least, do not reflect informed patient refusal.

- **Seventh**, medical staff fail to conduct meaningful – or any – welfare checks on residents placed in isolation cells in Housing Unit 5. Welfare checks in this housing unit are particularly important (and the standard of care in prisons) because isolation is a high-risk environment with a disproportionately high rate of morbidity and mortality.

- **Eighth**, there is still no system by which patients can submit their written requests for health care in a confidential manner that does not risk the requests being read by officers or even other residents, violating not only the patients' fundamental right to privacy of protected information, but risking that patients will not provide accurate or complete clinical information in those requests, which in turn can result in erroneous and dangerous decisions made by the nurses who triage those requests.

- **Ninth,** the electronic medical record used at EMCF continues to have serious inadequacies, both in the way it is designed and the way it is used, resulting in inaccurate medical records that are inefficient to use and, at times, likely dangerous.

- **Tenth**, dangerous conditions remain at EMCF. Fires persist. And while light fixtures that were a source of metal have been replaced, the new fixtures present a risk of death by electrocution, because their wires are exposed such that inmates can operate the lights by connecting or disconnecting the wires.

- **Eleventh**, the EMCF policies manual has significantly deteriorated. Although the policies were purportedly reviewed by Dr. Arnold in May 2018, I identified policies pertaining to other facilities, policies marked "Do Not Need," and outdated and conflicting policies, likely to mislead or confuse health care staff.

- **Finally**, the Mississippi Department of Corrections ("MDOC") remains derelict in its oversight of health care at EMCF. The statewide medical director, Dr. Gloria Perry, has been frighteningly disengaged from the medical problems at EMCF. Despite her awareness and acknowledgement that there are serious problems, as of the time of the trial – some seven years after MDOC was notified of unsafe medical conditions at EMCF – Dr. Perry had still

not set foot in EMCF. Further, her supervisors, knowing this and the serious medical problems at EMCF, have continued to allow her to operate in her critically important role.

For the reasons below, each of these deficiencies continues to put inmates at a risk of serious harm and even death. Disturbingly, six patients have died at EMCF in 2018 – and at least two of these deaths were likely preventable, but for the deficiencies I identify in this report. As a result, my opinion that the EMCF health care operation is a broken system that puts inmates at a risk of serious harm remains unchanged. Given that I have reached this conclusion in three reports – 2014, 2016, and 2018 – and EMCF has not corrected the vast majority of deficiencies, my opinion is that EMCF is incapable of remedying these deficiencies without outside intervention.

These opinions are offered with a reasonable degree of medical certainty, and are based on documents and evidence that are currently available to me. I reserve the right to modify or expand these opinions if additional information becomes available.

Qualifications and Disclosures

I am a board-certified internist specializing in correctional health care. I have managed health care operations and practiced health care in multiple correctional settings. Most recently, I served as the Assistant Secretary of Health Care for the Washington State Department of Corrections. I was qualified by the Court in this matter as an expert in correctional healthcare on March 19, 2018.

Additional qualifications and disclosures are included in my 2014 and 2016 reports (*See PTX-1501*), and my Curriculum Vitae, which I have attached as Attachment 5.

I am being compensated for my work in this matter at a rate of $225 per hour.

Methodology

Given the task at hand, to provide the most up-to-date analysis of medical conditions at EMCF, I focused my review on the months, weeks, and days leading up to my visit. As such, all dates in this report are in 2018 unless otherwise stated.

I employed a methodology generally similar to that which I employed for my two previous reports. *See PTX-1501*. In brief, I visited EMCF on October 9 to 12, 2018. This tour was conducted with the assistance of Warden Frank Shaw who afforded me unfettered access to any patient or part of the facility I requested to visit, and whose cooperation is greatly appreciated.

I toured Housing Units 3, 4, 5, 6, and the Medical Unit,[3] and met with a total of 37 patients from Housing Units 1, 2, 3, 4, 5, 6, and the Medical Unit. Of these 37 patients, I reviewed 22 medical records. I reviewed the recent medical record (or a portion thereof) of an additional 28 patients who were not interviewed, including the medical records of the 6 patients who died at EMCF since January 2018. I also reviewed a very limited component of the medical record – the current (October 2018) Medication Administration Record ("MAR") – of approximately 199 other patients.

I primarily chose these patients based on my review of a number of lists and logs including: the Sick Call Log; the Chronic Care Log; the Off-Site Specialty Referral Log; the Emergency Room ("ER")

[3] I did not tour Housing Units 1 or 2 at the request of the warden.

Trip Log; the Community Hospitalization Log; the list of patients who died; and patients currently receiving medications on the days of my visit. I also chose a small number of patients who were referred to me by counsel and by other patients. From among these patients, I chose specific cases using the method of purposive sampling. Purposive sampling is the appropriate scientific method to use in this situation because it assures that (1) the review is focused on individuals who actually make use of health care services; (2) those services are commonly provided services; and (3) those services are substantive, i.e., services that would present a risk of harm if poorly provided.

Thus, this report is based on substantial interaction with a total of 65 patients and/or patient medical records (more than 5% of the population) distributed across all Housing Units at EMCF, *see* Attachment 1 (Case Studies), and very focused interaction with an additional 199 patient medical records (an additional 15% of the population) also distributed across all Housing Units at EMCF, *see* Attachment 4 (MARs Reviewed). Other documents I reviewed are listed in Attachment 2.

Findings and Opinions

For consistency, this analysis is largely organized using the same categories of deficiencies used in my last report. This analysis is not an exhaustive review of all deficiencies in medical care delivery that I identified at EMCF. Instead, it is intended to provide an overview of the deficiencies at EMCF that I have concluded are in most need of urgent remedy.

1. Continued Lack of Access to Urgent Care

An essential element of a safe health care system is that inmates need to be able to access it in a timely manner, especially when their need is urgent. Urgent access is needed for conditions where time is of the essence. Examples drawn from patients at EMCF include chest pain, shortness of breath, sudden change in mental status (which is usually caused by a physiologic, not mental health, condition), bleeding, and seizure, among others. The process for gaining access to urgent health care in most prisons (and the stated process at EMCF) is by making an oral request to an officer who immediately notifies a nurse, who in turn immediately evaluates the patient's health care need. However, EMCF continues to fail to provide inmates access to urgent care by this, or any other safe mechanism, because patients frequently lack access to *any* security or health care staff, or staff ignore their concerns. The quality of care delivered during urgent care visits is also poor; this is discussed in more detail in Section 4 of this report, dealing with the performance of nurses, nurse practitioners ("NP"), and the physician.

With rare exception, all patients with whom I spoke in various housing units throughout the facility, gave almost identical reports: it is very difficult to get the attention of officers when they or other individuals have urgent or emergent needs. Residents have to bang on doors or simply wait for the next scheduled custody rounds – which can be anywhere from 30 to 120 minutes later – to seek medical assistance. But for many urgent health care needs, even 30 minutes is enough time for preventable injury or death to occur. And, even after getting an officer's attention, patients report that officers often tell them to submit a written request (i.e., ignores their request for urgent care), or if the officer contacts a nurse, nurses often give the same instruction without an evaluation.

For example, with rare exception, patients I interviewed reported that pressing the alarm buttons in their cells does not result in any officer action. Indeed, Warden Shaw informed attendees during my

tour that alarm buttons are not operational outside of Housing Unit 5. As in the past, I also found an alarm button missing in a cell in the most restrictive housing unit, Housing Unit 5. As can be seen in Figure 1, all that remains is an empty hole. Many residents I interviewed reported, and Housing Unit Log books confirm, that residents continue to start fires. The overriding reason reported to me for starting fires continues to be: it is, at those times, the only way residents can get an officer's attention for an urgent medical need. And, when they don't resort to fires, residents yell and bang and kick on their doors to attract attention.

Fig. 1.

I identified several examples of the serious risk – and actual harm – caused by EMCF's continued failure to provide access to urgent care:

- Patient 50 in Housing Unit 5 reported that he must beat on his cell to get attention when one of the other residents, Patient 28, has seizures. He reported that it usually takes about 30 minutes for an officer to respond. Patient 28 confirmed such delays in my interview with him. These delays place Patient 28 at serious risk of harm, as he has been experiencing episodes of low blood sugar, which can be fatal if not treated quickly.

- Patient 66, a patient with a known seizure disorder, started having seizures at some point during the night of January 17 to 18. According to a nurse's documentation, his "roommate [was] unable to get help." Officers finally took notice of Patient 66 at 6:52 a.m. The ambulance crew that was summoned later declared Patient 66 dead, after an unsuccessful resuscitation.

- Numerous other examples (sometimes more than one for a particular patient) are described in the attached Case Studies, including Patients 13, 23, 28, 54, 65, 67, and 68.

In summary, as noted in my previous reports, there is a high risk that inmates at EMCF who have an urgent health need will either not be able to make their need known to staff or, even if they do, will not receive timely – or any – care. While the high risk, by itself, is sufficient reason for concern, as cases I have highlighted in this and previous reports demonstrate, the risk can and does turn into potentially avoidable harm and even death. Patient 66 in this report and Patient 8 in my 2016 report might both be alive if they had had access to urgent care. Yet, EMCF has not addressed this problem by installing and responding to working call buttons in each cell, ensuring that security staff is present on pods at all times to respond to urgent needs, and/or ensuring that security and health care staff respond appropriately to urgent needs. Thus, the high risk that inmates at EMCF will suffer harm or even death as a result of poor access to urgent care remains.

2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care

It is also essential that patients be able to access care for non-urgent medical needs in a timely manner. These requests for care are referred to as "non-urgent" only because the patient believes the need is non-urgent and therefore uses the pathway to access non-urgent case, which at EMCF is to

submit a written sick call request ("SCR") for a health care professional to review.[4] The fact that we label these as non-urgent requests, however, does not mean that in reality the condition is non-urgent; it could, in fact, be life-threatening without proper treatment. Thus, failure to provide timely access to non-urgent care (or any care obtained via an SCR) puts patient health at risk. I found as a systemic matter that inmates at EMCF do not have reliable access to non-urgent care. The quality of care delivered during non-urgent care visits is also poor, as discussed in more detail in Section 4 of this report dealing with the performance of nurses, NPs, and the physician.

Moreover, there continue to be unacceptably long delays between when requests are submitted and when needs are addressed. As noted in previous reports, one reason for this delay – cancelling appointments for custody reasons – continues to happen frequently. Other than the very rare custody emergency (i.e., a riot or fight), halting custody movement of inmates who require medical care is unacceptable and dangerous. That is particularly true at EMCF, where many, if not most, cancelled visits are in fact due to unavailability of custody escorts, according to patient reports and staff notes in the patients' medical records.

I identified several examples of the serious risk – and harm – caused by EMCF's continued failure to provide access to non-urgent care:

- Patient 3 submitted an SCR for "Chest pain/cold" on July 13. It was marked by staff as "Urgent" on the Sick Call Log. He was not seen until September 15. Chest pain can be a symptom of a life-threatening problem, and timely assessing it is of the essence. The goal should be to provide care within hours or days, not months.

- Patient 4 submitted an SCR for diarrhea on August 29. It was also marked by staff as "Urgent." He was not seen until September 3. While most untreated cases of diarrhea end without complication, more persistent and voluminous diarrhea can lead to dehydration and death in days – even hours. Thus, a delay of 5 days is dangerous.

- Patient 5 submitted an SCR for "?Staph" on May 22. It was also marked by staff as "Urgent." He was not seen until September 23. Staphylococcal infections can be mild or can spread within days and ravage vital organs. These infections are especially feared in congregate environments such as nursing homes and prisons where they spread more quickly. This delay thus not only put Patient 5 at risk, it also put other inmates and custody staff at risk.

- Patient 12, a patient with congestive heart failure, hypertension, emphysema, and coronary artery disease, submitted an SCR for bilateral leg swelling on August 29. He was not seen until September 2. The condition underlying his leg swelling eventually led to his hospitalization three weeks later. In a patient with such a significant history of heart problems, leg swelling is usually a symptom of worsening heart failure, and rapid attention is required. A reasonable health care professional would have prioritized this patient to receive attention within the next few hours or day. Waiting 4 days to see the patient risked that, by the time he was seen, his heart failure would be so severe as to require hospitalization, possibly in the intensive care unit, or would be so far gone as to result in death.

[4] Had the patient believed his request was urgent, he would have made an oral request to an officer or health care staff for care, as described in Section 1.

- Patient 16, a patient with a history of high cholesterol, stroke, coronary artery disease, and hepatitis C, submitted an SCR on June 27 for loss of feeling and strength on the left side of his body. This is an emergency, and despite signs of a possible stroke, for which rapid intervention might prevent further brain damage, he was not seen by health care staff until July 2, and did not receive treatment until he was sent to the emergency room on July 6.

- Numerous other examples (sometimes more than one for a particular patient) of lack of access or timely access to urgent care are described in the attached Case Studies, including Patients 10, 13, 25, 33, 35, 38, and 39.

In summary, as noted in my previous reports, patients at EMCF who attempt to access health care via SCR often have delayed access and sometimes do not have any access whatsoever. EMCF has failed to assure that patients are scheduled to be seen in a timely manner after submitting an SCR, and that custody staff actually transports patients to the medical unit when they are scheduled to be seen. Given that the health care needs sought through this pathway can be serious – and at times urgent – this impaired access places patients at EMCF at significant risk of harm.

3. Continued Lack or Delay of Access to Chronic Care

A third essential type of care is chronic care. Patients generally receive care for chronic diseases – such as diabetes, hypertension, seizures, and asthma – via scheduled visits with practitioners along with prescribed medications, routine testing, and education focused on managing their disease. Careful management of chronic diseases is essential to prevent short-term harm (such as injuries from poorly controlled seizure disorders, or when blood sugars plummet causing unconsciousness or death) and long-term harm (such as hardening of the arteries of the brain, heart, and kidneys caused by poorly controlled blood pressure or diabetes).

Patients at EMCF continue to have impaired access to chronic care because appointments for chronic care clinics (CCC) are either cancelled or not scheduled. The reason for cancellation continues to be, most often, custody's failure to transport the patient. Save for very rare custody emergencies, the failure to transport patients due to custody reasons is unacceptable. The quality of care delivered during chronic care visits is also poor, as is discussed in more detail in Section 4 of this report dealing with the performance of nurses, NPs, and the physician.

I identified several examples of the serious risk – and harm – caused by EMCF's continued failure to provide access to timely or adequate chronic care:

- Patient 19 has severe diabetes requiring insulin. At least two of his CCC visits were never scheduled, resulting in one-month and three-month gaps in care. In addition, despite very high blood sugars, the physician and NPs did little to bring his diabetes under control during CCC visits (see the graph and further details in Section 4 of this report under the subheading of "Dr. Arnold"). As a result, Patient 19's diabetes remains out of control, with very high blood sugar levels which are increasing the risk of permanent damage to his brain, heart, and kidneys.

- Patient 24 has a chronic seizure disorder. His seizures were well-controlled on medication until his first CCC visit – which post-dated Dr. Arnold's arrival – when Dr. Arnold discontinued his seizure medication for no apparent reason. As a result, the patient's seizures

resumed, putting him at risk of injury or death from seizures. Despite this, nothing was done at his next CCC visit and his seizures continued.

- Patient 25 has asthma requiring medications. His CCC appointments were cancelled at least twice due to custody reasons, resulting in a several month gap in chronic care. Due to this cancellation, as well as failure of practitioners to address his medication requirements, he spent several months without one or both of his essential medications, putting him at risk of respiratory distress and possible death.

- Numerous other examples of failure to provide timely or adequate access to chronic care are described in the attached Case Studies, including Patients 18, 21, 26, 27, 39, 43, 64, 65, 66, 67, and 69.

In summary, as noted in my previous reports, health care cannot be safe when serious chronic diseases like heart disease, hypertension, diabetes, and asthma, among others, are not managed competently and are not managed on a timely basis, and this cannot happen when appointments do not take place as scheduled. EMCF has failed to assure that patients are scheduled to be seen on a regular basis for chronic care, that custody actually transports scheduled patients to the medical unit, and that patients receive competent care during their visit. Lack of access to competent chronic care therefore puts patients at risk of preventable complications from known, serious health problems. Such is the case at EMCF.

4. Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

Health care should be provided by appropriately licensed professionals operating within the limits of their licensure, training, and ability, and using sound judgment and a reasonable degree of competency in making clinical decisions and delivering care. That does not happen at EMCF, where health care providers – nurses, NPs, and the physician – continue to provide care that falls below the standard of care expected of health care providers. The quality of care provided by health care professionals is the single foundational element of a health care system. Even if most of the deficiencies described above and below were to be repaired, those repairs would have little value in the presence of doctors and nurses making poor decisions and delivering poor care. Thus, the quality of care provided by the medical staff at EMCF – among the worst I have seen in any institution in the United States – places all patients at risk of serious harm and death.

I identified numerous examples of the serious risk – and harm – caused by the continued provision of dangerous care by EMCF's nurses, NPs, and physician:

Licensed Practical Nurses ("LPNs"):

- EMCF still permits LPNs to practice beyond their legal and safe scopes of practice, including by conducting independent assessments of patients after uses of force, prior to placement in isolation, or in some emergencies. This places patients at serious risk of harm, because LPNs are not trained or equipped to provide care in these situations, as shown below.

- Patient 15 was involved in an altercation on July 15, after which he was evaluated by an LPN. The LPN found that the patient's heart rate was 110 (elevated) and his heart rhythm was irregular. These abnormalities may have indicated that the patient had sustained damaged to

his heart, such as blunt force trauma, which, if untreated, could have caused severe harm or death. As such, the patient required further professional evaluation and, at the very least, close medical monitoring. However, despite these abnormalities, the LPN did no further evaluation, made a *de facto* assessment that he was healthy, and "cleared" him to be placed in an isolation cell. The LPN's care was dangerous and outside the legal limits of her license.

- Patient 28 has diabetes that is not well-controlled. An LPN responded to a "Man Down" emergency involving Patient 28 that was called by custody staff. Without conducting any evaluation whatsoever, the LPN administered the patient sugar (glucose). However, other serious medical problems may have caused the "man down" and would have been missed due to the lack of examination. Further, even if the cause of his condition were low blood sugar, and the LPN had accidentally provided the correct emergency treatment, the patient required further evaluation to determine the reason his blood sugar dropped, and close monitoring over the next several hours to assure it did not drop again. Despite that, the LPN simply asked the next shift to check on him, at which point, his blood sugar was 562, an extremely high and dangerous amount – a condition the LPN's "care" may have contributed to. Thus, the LPN's care was dangerous and outside the legal limits of her license.

Registered Nurses ("RNs"):

- Patient 10 lost consciousness at some time early on May 4. An RN told him to fill out an SCR. There is no evidence the RN conducted any evaluation. Later in the day, he was seen by a second RN for a pre-scheduled blood pressure check. He again reported his loss of consciousness. The second RN also failed to conduct any evaluation. Loss of consciousness – in anyone, but especially in a 55-year old, like Patient 10 – can be due to life-threatening conditions (e.g., stroke, heart attack) and requires an urgent evaluation. Instead, two RNs in a row ignored the patient's condition.

- Patient 12, a patient with serious underlying heart disease, including congestive heart failure, was seen by an RN on September 2 for bilateral leg swelling. The RN neglected to conduct any physical examination, other than taking vital signs, or to take any meaningful history, and despite the patient's history of heart disease, only instructed him to elevate his legs. Leg swelling in a patient with congestive heart failure should be presumed to be due to worsening heart failure (possibly due to a heart attack) and requires immediate referral. Further, leg elevation in this setting is dangerous as it puts more strain on an already failing heart. The RN's care placed the patient at risk of preventable harm and even death.

- Patient 13, a patient with a history of ulcerative colitis (a condition which causes bleeding from the gut) came to see an RN late in the evening of September 3 because he was worried about his blood pressure. He had been seen earlier in the day by another RN for several episodes of bloody diarrhea. He now reported that he was passing stools with at least "a gallon of blood." The nurse measured his vital signs, which demonstrated that his heart was racing (122). In the case of a patient with ulcerative colitis who reports losing blood, a racing heart is a hallmark to any health care professional of possible voluminous blood loss, requiring immediate consultation with a practitioner or, in the absence of an alternative explanation, evacuation to an ER. Instead, beyond noting that he was alert and oriented and that his skin was pink, warm, and dry, the nurse instructed the patient to fill out an SCR. On September 11, Patient 13 lost consciousness and was hospitalized in the Intensive Care Unit, where he received blood transfusions due to the bleeding from his gut. The RN's care may

have caused an unnecessary hospitalization, and placed the patient at risk of preventable harm and even death.

- Patient 16, a 63-year old with a history of stroke and heart disease, submitted an SCR on August 16 in which he reported "having dizzy spells to the point of blacking out. Please help me." He was not seen until August 23. At this visit, his blood pressure was 82/60 (dangerously low) and his pulse was 55 (very low). In a patient with his history, his symptoms were very worrisome because they could indicate a worsening of his heart failure. And his low blood pressure alone was alarming and reason enough for immediate contact of a practitioner or evacuation to the ER. The nurse did neither. Four weeks later, he developed chest pain and was sent to the ER for evaluation of a possible heart attack – harm that may have been avoided with better care.

- Patient 6 was experiencing severe symptoms related to low blood pressure. On September 20, Dr. Arnold ordered the patient's blood pressure medications temporarily paused to see if this would ameliorate the problem. To do so safely, Dr. Arnold ordered nurses to check the patient's blood pressure daily until his next medical visit in one week. Nurses failed to do so on September 23. By September 24, the patient was severely ill and had to be rushed to the ER for a possible stroke. I cannot know what his vital signs and condition were on September 23. However, any reasonable opportunity to prevent the emergency on September 24 was squandered by ignoring the patient on September 23.

- Patients 64, 65, 66, 67, and 68 collapsed in their housing units in separate incidents. Nurses began CPR on each of them, and then placed each on a small transportation gurney, and, while continuing CPR, transported the patient all the way from the housing units back to the medical unit. These decisions were made by the respective RNs at the scene. When a patient's heart stops, it is essential to provide continuous, uninterrupted, effective chest compressions if the patient is to have any chance of survival. It is virtually impossible to provide such treatment on a moving gurney. Instead, CPR should be continued in place (or, if there were a security concern, in the area immediately outside the housing unit). Thus, any chance these 5 individuals had of survival were markedly reduced by the decision of each of these RNs. All 5 patients died.

Nurse Practitioners:

- Patient 64 had a history of thyroid gland insufficiency (his own thyroid gland was unable to produce a hormone necessary for life, so he needed to receive oral replacement hormone), among other conditions. An NP saw the patient for his condition during a CCC visit on October 4, 2017. A thyroid hormone blood test she ordered was reported back as very abnormal (a TSH level of 26, above a normal range of 0.2 – 4.5, indicating that the patient was extremely thyroid deficient). It required quick attention to increase the amount of thyroid hormone medication the patient was getting. On October 6, 2017, the NP signed off on this very abnormal result, but did nothing to address it, including not ordering the test to be repeated. The test was never repeated prior to the patient's death on January 3. It is very possible that the NP's ignoring of the patient's condition contributed to his death.

- Patient 66 had a history of seizures and mental illness. He was seen by an NP on October 5, 2017 in CCC for his seizures. During the visit, the patient reported that he had had a seizure 2 months earlier. The NP should have, but failed, to find out more information about the

patient's recent seizure, such as the frequency and nature of the seizures. This information is necessary to plan any changes in treatment to prevent future seizures and associated complications, such as falls and injuries. During the visit, the patient's blood pressure was also dangerously low (87/64, pulse 92). Even in the absence of any other conditions or information, a blood pressure this low requires emergent attention as it is a precursor to stoppage of the heart. In this particular patient, it also required an examination of the patient's medication status because the medication he was taking for his seizures, Dilantin®, can cause low blood pressure. Despite this, the NP did nothing.

Two months later, on January 7, and 11 days prior to his death, an NP wrote an order to increase the patient's Dilantin® dosage from 300 mg to 400 mg daily, based on a blood test. This was dangerous on two counts. First, Dilantin dosage is not primarily managed based on blood tests, but rather on how effective the current dosage is in controlling the seizures (and any side effects of the drug). Second, low blood pressure is a known side effect of Dilantin® and, in the light of the patient's history of low blood pressure, raising the dosage put him at risk of dangerously low blood pressure. Prior to making this dosage change, the NP did not check his current seizure control (which had not been checked in 2 months), nor his blood pressure. It is possible that the NP's inappropriate order to increase Patient 66's seizure medication contributed to, or caused, his death.

- Patient 69 also had a seizure disorder. Four months prior to his death, he had a CCC visit with an NP. The NP noted that he had had a seizure just 3 weeks earlier and was not taking his two seizure medications. From the NP's documentation, it is not clear if the patient did not want his medications, or wanted them but was not getting them. Regardless, the NP had a clear duty to address the issue with the patient, document the conversation, and most importantly, construct a treatment plan. Instead, the NP simply continued the medications without further discussion. Thus, whatever the cause of the patient not receiving treatment, her actions ensured that he would not get treatment unless the medication problem resolved itself. Three months later, a different NP saw the patient for his next CCC visit. This NP failed to elicit any history regarding the patient's seizures since his last CCC visit, despite his history of seizures prior to that visit. Moreover, the NP failed to address the issue of medications that was described during the previous visit. This was critically important and is one of the essential reasons for a patient to attend a CCC – to ensure continuous, effective care for chronic diseases. As a result, documentation shows that the patient received only a few of his ordered dosages of seizure medications – for months – and that he did not have detectable levels of either drug in his blood when he died, on April 9, after having 3 seizures in a row. It is possible, indeed likely, that the NPs' repeated failure to address the patient's medication issues contributed to, or caused, his death.

Dr. Arnold:

During my review, I did note some partial improvement in some aspects of the quality of care provided by the Site Medical Director, Dr. Arnold, relative to the care provided by the previous doctor at EMCF. These include an increase in the number of patients seen in CCC by the physician instead of an NP; some decrease in the number of critically ill patients sent to the ER by van instead of ambulance; no complaints about the physician exposing patients to embarrassing examinations without privacy; and a degree of increased quality of other medical decision making. However, these marginal improvements in the horrific care provided by the previous physician should not in any way be construed as meaning that the current care is minimally safe – it is not. Moreover, these minimal

improvements have no impact whatsoever on the deficits in medical care that are not related to the physician. For example, as Dr. Arnold testified at trial, he plays no role in supervising LPNs and RNs, and therefore, plays no role in preventing the dangerous care described above. Finally, while there is a *degree* of increased quality of medical decision-making by Dr. Arnold compared to that of the previous physician, that increase is small and does not at all elevate the quality of care provided by Dr. Arnold to a minimally acceptable level that does not continue to expose patients at EMCF to significant risk of harm, as illustrated by the following examples:

- Patients reported to me that Dr. Arnold discontinued their medications without examining them. Review of medical records confirmed these claims. For example, on June 11, Dr. Arnold denied a request from an NP to continue Patient 20's pain medication (gabapentin) that he had been on for some time, writing "patient was weaned off gabapentin and can be treated with alternative medications." In fact the patient had not been weaned off gabapentin – he was still on it. And the patient's record showed that the patient had already been on an alternative medication in the past without success. Nevertheless, on June 22, the pain medication was abruptly discontinued. An NP ordered a different medication; however, this was the same medication that had been tried in the past without success. Thus, the patient was unnecessarily subjected to pain and remained in pain until August 4, when an NP finally replaced him on gabapentin.

- Patient 24 was also on gabapentin, but as a medication to control his seizures. And, in fact, his seizures were well controlled on this medication. Nevertheless, during a visit on November 29, 2017, Dr. Arnold informed the patient that he would be switched to a different medication. He gave the patient no reason, nor did he document one in the medical record. It is not clinically rational or acceptable to have taken the patient off a medication that controlled his seizures without some explanation. Further, it appears Dr. Arnold decided to stop the gabapentin several days earlier, because the prescription had been allowed to expire on November 26, 2017 without the patient's consent or even notification. Thus, from November 26 to 29, 2017, the patient was intentionally left without any medication, putting him at risk of a seizure. Lastly, the new medication was never ordered. Predictably, the patient began having seizures again which put him at risk for injury and, in severe cases, death. Finally, more than 2 months later, an NP restarted his gabapentin and his seizures became better controlled. These patients suffered needlessly, and in one case risked death, due to Dr. Arnold's strange and unsupported prescribing practices.

- Patient 19 has diabetes for which he requires insulin. His blood pressure had been in reasonable control until the beginning of 2018. Dr. Arnold saw the patient on June 5. At this point, the patient's diabetes was under horrible control: his HbA1c, a test of blood sugar control, was greater than 15% (with normal being less than 5.7%). Poor control of diabetes has many serious effects, including short term death from acidosis and dehydration, and long term death from brain, heart, and kidney damage. Dr. Arnold missed the obvious cause of this: in the previous month, nurses had only administered 29 of the patient's scheduled 62 doses of insulin. He recommended a change in the way the patient injects himself and a return visit in 1 month. The patient was seen by one of Dr. Arnold's NPs a month later. His blood sugar was high, and it remained high ever since; as shown in Figure 2, the dotted line is the

upper limit of normal, and the patient's blood sugar was and remained well above that limit. The patient continued to not receive his ordered doses of insulin from May until my visit in October (I cannot comment on September, as the MAR is missing). Dr. Arnold continued to sign off on MARs that clearly showed that the patient was not getting his insulin, yet neither he, nor the NPs he supervises, did anything meaningful to prevent harm to this patient from a sustained, and dangerous, blood sugar level, placing him at risk of preventable injury and death.

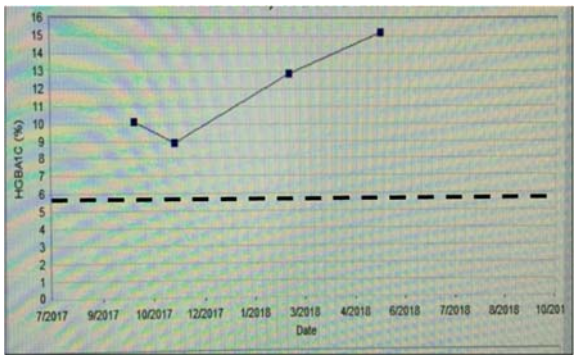


Fig. 2.

- Dr. Arnold's approach to Patient 8, with a similar problem – a diabetic patient experiencing high blood sugars due to failure of nurses to administer insulin – was the same. A HbA1c test on May 25 was 14.3% (extremely high, above the normal of less than 5.7%). Dr. Arnold's NP signed off on this result and made a thoughtless change to the patient's treatment plan, increasing the dose of a diabetes pill the nurses were failing to administer on a regular basis. When Dr. Arnold received the patient's MARs to review, the MARs clearly showed that nurses were failing to deliver the patient's diabetes medications, including insulin; yet, he signed off and did nothing. Finally, on August 23, the patient's blood sugar was so high that it could not be measured on the clinic's instruments, and he was sent to the hospital. Dr. Arnold's care, again, placed the patient at risk of preventable injury and death, and likely resulted in an unnecessary hospitalization.

- Patient 42 was sent to a specialist on September 19 for a biopsy of a mass in his right neck. The biopsy results were "suspicious for papillary carcinoma." Papillary carcinoma (of the thyroid gland in the neck) is a cancer which can cause death if not treated at an early stage. Dr. Arnold signed off on this report on September 27. Yet, as of the time this patient's medical record was produced on October 16, there is no indication that Dr. Arnold had taken any action to treat this patient's possible cancer.[5]

- Dr. Arnold's lack of care and his thoughtlessness in treating patients at EMCF is perhaps best captured by an order he wrote for Patient 65 on April 12. On this date, he signed an order to change one of the patient's hypertension medications (metoprolol) to a different medication (carvedilol). While these two medications are both used for blood pressure control and have many similarities, they have different effects and side effects, and thus such a medication switch (a) should take place for a reason, and (b) should be followed by monitoring of the patient. It is difficult to imagine how, at the moment Dr. Arnold wrote this order, he perceived a reason to make the change, no less how he expected to monitor the patient, because at the time Dr. Arnold ordered a change to the patient's treatment regimen, Patient 65 had been dead for 3 months.

[5] Due to the seriousness of this biopsy report, on October 26, I asked Plaintiffs' counsel to notify Defendants, and specifically, a responsible physician at Centurion, of this finding, requesting confirmation that this was accomplished. Remarkably, it appears that EMCF released this patient from custody, without any evidence in the medical record that health care staff informed him that he may have cancer.

Multiple Providers:

- The case of Patient 6 is a chilling example of how the incompetence of multiple health care professionals across more than a single professional discipline converged on a single patient to contribute to an unfortunate, and very likely preventable, outcome: a heart attack in a 30 year old. Patient 6 suffers from hypertension – a risk factor for heart disease – for which he was prescribed two medications. For long periods of time, various LPNs failed to administer the medications as prescribed and failed to notify any practitioner of the fact that the patient was not getting these medications. During a CCC visit, when the practitioner should review a patient's compliance with medications – at which time the practitioner would have discovered the failure to receive medications – the NP failed to do so. On February 9, the patient developed chest pain. His blood pressure was dangerously high (240/140, normal <120/80). Given his chest pain and high blood pressure, he required immediate examination of his heart and lungs to determine if he might be having a heart attack. Instead, the RN who evaluated him failed to do so, and the NP, whom the RN brought in to consult, failed to appreciate this glaring deficit and address it. Neither the NP nor the RN arranged for the patient's evacuation to an ER. More than an hour later, when he developed additional symptoms, including difficulty breathing and agitation, the team still did not send him to the ER. Instead, focusing on his agitation, they handed him off to a mental health practitioner and discontinued involvement in his care. Two days later he was brought to health services unit because he again had chest pain. An RN determined an EKG – a test performed to help assess if a patient is having a heart attack – was necessary, but did not perform the test for almost another hour. The patient was finally sent to the ER. However, based on the instruction of another NP, he was sent by state van, rather than ambulance as required for such a critically ill patient. Upon arrival at the ER he was rushed for cardiac catheterization, at which time an acute heart attack was confirmed. Had this 30 year-old patient been treated appropriately by any one of a series of health care professionals over a several month period, it is likely his heart attack could have been prevented or caught at an earlier stage. Further, during the entire 2 days after the onset of his chest pain, when he remained in a non-hospital setting, he was at high risk for sudden death.

Finally, as a global reflection of the dangerous care provided at EMCF, the death rate has increased in 2018. My previous reports, in 2014 and 2016, together covered a period of approximately 3 years during which, based on documents from EMCF and public records, there were 7 deaths. My current report covers a period of approximately 0.75 years during which there were 6 deaths. Errors in care *likely* contributed to 2 (Patients 64 and 69), and *may* have contributed to the other 4 (Patients 65, 66, 67, and 68) deaths, meaning that the dangerous care at EMCF may have contributed to every single death in the prison in 2018. Remarkably, despite the fact that medical care at EMCF is under federal court review and despite the hiring of a new physician, health care staff at EMCF still have not managed to meet the most basic of health care objectives – to keep their patients alive when possible.

5. Continued, and Worsening, Failure to Assess Causes of Deaths

It is the standard of care in health care that deaths that occur in a prison are carefully examined by a process generally referred to as a Mortality Review ("MR"). The most important goal of the MR is to identify errors in care so that those errors can be corrected. All significant errors are addressed, regardless of whether those errors contributed directly to the death. The rationale for addressing even non-contributory errors is that, while an error may not have contributed to the death, correcting the error will help prevent future deaths. After identifying errors and prioritizing them based on their

importance, the health care organization conducting the MR determines the "root" or underlying cause of the errors, designs a plan to cure the errors, and monitors operations to assure that the errors are indeed cured. Because of the gravity of errors associated with deaths, it is my experience that these are the errors about which health care organizations are the most concerned and that they expend the most effort in trying to identify and correct (and do so quickly).

Based on my review, this is not the approach to MR and associated errors at EMCF. For my previous reports, I received only one MR. It was incomplete and ignored serious errors during delivery of health care. Yet, the 6 MRs I received for my current report are even more cursory and again ignore serious errors. While the MR at EMCF is conducted at two levels – by Dr. Arnold and by his supervisors at the health care contractor, Centurion – both levels of MRs revealed a complete indifference to what caused these men's deaths and a disturbing disinterest in preventing future deaths.

The problems with the MRs are as follows:

- First, all of the MRs are incomplete. They are missing the autopsies, which, along with the accompanying medical examiner reports, are critical to fully understanding the death. Despite the fact that each MR notes that the autopsy must be obtained, none of the autopsies apparently were obtained, even though all of the deaths occurred more than 5 months ago. The MRs are also missing other documents that the reviewers deemed important to obtain. For example, the MR of Patient 69 indicated that the April MAR was needed as part of the review, but it was never obtained or reviewed. In fact, the April MAR (which I obtained easily – it was in the patient's medical record) was a key piece of evidence as it provided data that pointed to an avoidable (and therefore fixable) possible cause of death – that nurses failed to administer 10 out of 16 scheduled doses of seizure medication. Given Patient 69 died after having 3 seizures in a row, and that blood tests showed he had no detectable seizure medication in his blood on the day he died, failure to identify and fix the problem with Patient 69's medication administration virtually guarantees that the medication administration system at EMCF will kill again.

- Second, Dr. Arnold's MRs were frighteningly cursory. During my own review of the medical records of the 6 patients who died in 2018, I identified several severe deficiencies in care in each of them, some of which may have been causally linked to the patients' deaths. However, despite these numerous errors, Dr. Arnold noted absolutely no concerns with 5 deaths, and only 2 areas for improvement –1 minor – for 1 death. He failed to question, for example, the fact that there was a 10 minute delay between the time custody staff found Patient 66 unresponsive (6:52 a.m.) and when medical staff arrived at his bedside (7:02 a.m.), well beyond the acceptable limit for a response, all but assuring that the patient could not be saved if his heart had stopped. Dr. Arnold didn't question, for example, the fact that Patient 64 had received none of his blood pressure or thyroid medications – treatment for conditions that, untreated, can be fatal – in the 1.5 months before he was found without a pulse in his room. He didn't question, for example, the fact that custody staff, upon seeing Patient 65 collapse in the hallway after choking, never called 911, or the fact that the nurse waited at least six minutes from the time she arrived on the scene and learned the patient needed CPR to call 911, so that advanced life saving techniques could be applied.

- Third, the gross deficiencies in the MRs performed by Dr. Arnold were not noticed or corrected during the Centurion review. Among all 6 deaths, the Centurion corporate

committee noted only 4 additional, very broad areas for improvement, failing to note several of the deficiencies that may have been causally related to the deaths.

- Fourth, even in those few circumstances where the MR identified a deficiency that could be improved, I found no evidence of any action being taken to determine the root cause of the deficiencies, to correct them, or to monitor the effectiveness of the correction.

The critical nature of these failures is demonstrated by two patients' deaths at EMCF in 2018: in the MR for Patient 64, Centurion identified nurses' failure to properly administer the patient's medications, noting missed doses of medications; yet, sadly, this problem was not fixed, as it was again identified as an area for improvement in the MR for Patient 69, who died three months later. In other words, had the MR process for Patient 64 been conducted properly, the death of Patient 69 may well have been prevented.

In sum, EMCF pays little attention to even the most devastating outcomes: deaths and – worst yet – potentially preventable deaths. By ignoring these deaths and what can be learned from them, EMCF and Centurion may well doom future patients to the same fate.

6. Continued, and Worsening, Failure to Provide Medications to Patients

Medications are foundational to the treatment of diseases. It is thus axiomatic that patients must receive these medications. There are several critical steps for this to happen: First, nurses must administer the medications ordered by practitioners. Second, they must do so at the time of day ordered by the practitioner. Third, they must follow the universal rules of nurse-administered medication administration, which include verifying that they are giving the right medication to the right patient, and that they observed the patient taking the medication. Finally, nurses must accurately and clearly document the medication administration (or failure to administer) in the patient's medical record.

Based on my previous two reviews, nurses at EMCF failed miserably at administering critically important medications as ordered by practitioners to treat serious diseases. Based on my current review, that failure has gotten worse. Not only are nurses failing to administer medications more frequently, but they are also failing to do so at the ordered time and to ensure that medications are actually taken. And, there are signs that nurses are endeavoring to obscure these failings, that is, documentation in patients' medical records do not appear to match reality, meaning nurses are likely falsifying medical records.

These impact of these failures could not be more serious. As I outline below, failure to provide medications is linked to at least three of the deaths at EMCF this year.

<u>EMCF nurses do not administer medications ordered by practitioners to treat patients' serious diseases</u>:

Nurses must document every dose of medication on a paper grid, a MAR, that is changed out monthly. For every dose the nurse administers, the nurse places his or her initials in the cell that corresponds to the medication (row) and date (column) of the dose administered. In the event that the dose is not given, the nurse is expected to indicate the reason by writing a number that corresponds to the reason in that box. At EMCF, "1" denotes that the medication was "Refused by inmate"; "2" denotes "Inmate did not show"; and "6" denotes "Medication out of stock." Non-administration of

medications should be rare, because most medications prescribed at EMCF are provided to treat serious disease, and failure to administer the medication will cause the disease to worsen. I have limited my discussion of the failures in medication administration to these critical medications.

In addition, each of the 3 reasons for non-administration denoted by 1, 2, and 6 should also be rare: As to 1 – "Refused by inmate" – when a patient refuses one dose, or, depending on the medication, several doses of a medication, the nurse should notify the prescriber, who should address the issue, usually by discussing the issue with the patient and trying to remedy the reason for refusal, by, for example, addressing side effects or explaining the importance of the medication. As to 2 – "Inmate did not show" – it is an unacceptable reason for non-administration in a prison, an establishment where staff should know where individuals are at all times. "No show" is also an unacceptable reason because it may be due to the patient being too weak or sick due to effects of the medication or his disease, or because the patient is being intimidated by fellow inmates or officers from seeking his medications. "No show" is especially unacceptable in a facility such as EMCF that specifically houses seriously mentally ill patients, because these patients may lack the capacity or judgment to understand the need for their medications. Finally, as to 6 – "Medication out of stock" – medications should rarely be out of stock. The medications used at EMCF are common medications that are easily obtained. EMCF has access to a functioning pharmacy. That a patient will be running out of a medication on a given date, and the need to replenish it, should never come as a surprise. Taking these considerations into account, I found that EMCF nurses fail to administer medications ordered by practitioners to treat patients' serious needs with alarming frequency.

The following information informed my opinion:

- First, most patients I spoke to about medication administration complained that nurses failed to administer scheduled medications.

- Second, I reviewed non-insulin MARs in active use for the first week and a half of October, including the day of my inspection, for patients in a variety of Housing Units. According to these MARs, nearly all of these patients – 147 of 173 – had not been given a very significant portion (at least one-third) of one or more medically necessary medications to treat a serious disease. For another 27 patients, there were fewer, but still some, medication misses.

- Third, I reviewed insulin MARs in active use for the same time period and found at least 29 patients for whom a significant number of insulin doses had not been delivered; in fact, for most of the patients, *most* of the doses of insulin had not been given.

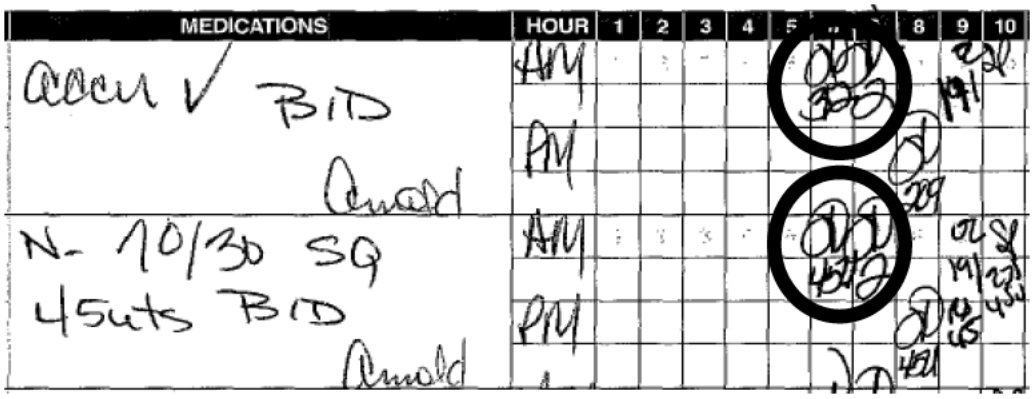


Fig. 3 CENT-POSTTRIAL-003344.

The MAR of Patient 70, shown in Figure 3, was frighteningly typical. The MAR reflects that Patient 70 had received no doses of insulin at all during the month of October until the morning of October 6, at the earliest[6], when his blood sugar was checked (top section) and insulin was given (bottom section).

Unsurprisingly, based on my review of these sources, I found dozens of cases in which nurses failed to administer the medications ordered by practitioners. In all of these cases, the nurses' failures placed patients at risk of harm. Indeed, every patient who was routinely denied access to insulin was at a short term risk of unnecessary hospitalization and death, and long term risk of suffering harm to his heart, brain, and kidneys, and, eventually, death. More troublingly, each of the 6 patients who died in 2018 was subject to rampant missed medications. For 3 of the patients, medication administration failures may have even contributed to the patient's death:

- Patient 64 was a 55 year old who suffered from high cholesterol, thyroid deficiency, and hypertension, among other conditions. The patient was receiving medications for two of his chronic diseases. Given that he did not receive any HCTZ (for hypertension) or levothyroxine (for hypothyroidism) in the 1.5 months prior to his death, it is very possible that this contributed directly to his death.

- Patient 68 was a 60 year old who suffered from coronary artery disease, cardiomyopathy, hypertension, and diabetes, among other conditions. He was on several powerful medications to treat these conditions. During the weeks prior to his death on March 3, nurses failed to administer many of his essential medications. In January, nurses failed to administer at least 20 doses of his insulin; and in February, nurses failed to administer at least half the doses of insulin without explanation. Nurses failed to administer 6 of his 9 cardiac medications (nitroglycerin, lisinopril, furosemide, carvedilol, amlodipine, amiodarone) for the first third of February, after which they restarted. While the February MAR states next to each halted medication that the medication was "discontinued per order of 1/31," I could find no such order and could not identify any appropriate clinical reason that these life-saving medications would have been discontinued – despite requesting documentation supporting the discontinuation. Finally, according to the March MAR, in the 72 hours prior to his death, Patient 68 received only 1 of 3 of his ordered daily doses of insulin. In the absence of better data showing an alternative cause of death, it is very likely that the failure to treat Patient 68's heart disease and diabetes played a causative role in his death.

- Patient 69 was a 40-year old who suffered from seizures, hepatitis C, and HIV, among other conditions. Two different seizure medications were prescribed to control his seizure disorder. During the months leading up to his death, nurses failed to administer

[6] During my on-site visit, I noted that Patient 70's MAR showed that there was no record of administration or attempted administration before the evening of October 8, when he finally did receive insulin. In other words, the entries which I have circled in Figure 3 were not present when I inspected this MAR on October 10. However, the copy of the MAR produced several weeks later, shown here, shows that an administration occurred on the morning of October 6 and that the patient was a "No Show" on the morning of October 7. As such, it appears that the MAR was either falsified before it was produced or that EMCF nurses are noting medications administrations days or weeks after they have occurred, which violates all rules of nursing medication documentation and is itself dangerous because anyone using the medical record before they made their retroactive documentation would be making decisions based on bad data.

almost all the doses of one of his medications, and a third or more of the other medication. As a result, the medications were not detectable in the patient's blood, and he therefore had virtually no protection from seizures. On April 9, he had several seizures. He died during his third seizure. In the absence of a more plausible explanation, it is likely the patient died as a result of seizures or the complications of a seizure. It is also reasonable to conclude that the failure to receive his medications played a causative role in his death, and that his death was likely preventable.

EMCF nurses do not administer medications at the time of day ordered:

Medications must be administered at the time they are ordered to be administered. That is because failure to adhere to the prescribed time can result in the blood level of the drug being too low if there is too long a gap between doses, in which case the patient may suffer from undertreatment of his disease. Conversely, the blood level may also be too high if doses are given too close together, in which case the patient may suffer from drug toxicity. While there may be more or less leeway in how early or late a particular medication may be administered, the standard of care, which was noted at trial both by MDOC's Chief Medical Officer and an EMCF nurse, is to administer medications within an hour of the scheduled time. Because medications at EMCF are typically scheduled to be administered at 9:00 a.m. and 9:00 p.m., they may safely be administered between 8:00 a.m. and 10:00 a.m. and then between 8:00 p.m. and 10:00 p.m. Based on my review, EMCF nurses fail to administer the medications at the time of day ordered with alarming frequency.

The following information informed my opinion:

- First, most patients I spoke to about medication administration times complained that nurses often fail to administer medications at or near the scheduled times.

- Patients' accounts were supported by EMCF's own records. I reviewed pages from the Housing Unit Log books for Units 3 and 5, a general population unit and an isolation unit, respectively, for the past few months. I found frequent examples of morning and evening medications being administered well beyond safe limits. The following tables includes a limited sample of representative examples:

Date	Unit	Latest safe/legal time for medication administration	Time medication administration began in unit	Length of time past safe/legal time[7]
May 18 AM	3B	10:00 a.m.	12:24 p.m.	2.5 hrs overdue
May 21 AM	5B	10:00 a.m.	12:31 p.m.	2.5 hrs overdue
September 5 AM	5D	10:00 a.m.	1:27 p.m.	3.5 hrs overdue
May 28 PM	3D	10:00 p.m.	2:47 a.m. (on 5/29)	5.74 hrs overdue
June 16 PM	5D	10:00 p.m.	4:42 a.m. (on 6/17)	6.75 hrs overdue
September 5 PM	5C	10:00 p.m.	2:26 a.m. (on 9/6)	4.5 hrs overdue
September 11 PM	5 A, B, C, D	10:00 p.m.	3:28 a.m. (on 9/12)	5.5 hrs overdue
September 25 PM	3C	10:00 p.m.	12:07 a.m. (on 9/26)	2 hrs overdue

[7] This column understates the length of time overdue, because I calculated these times using the time administration *began*. Obviously, for most patients on the unit, their medications were administered sometime after administration began, and there was thus a greater delay in administering their medications.

EMCF nurses do not follow the universal rules of nurse-administered medication administration, including verifying that they are giving the medication to the right patient and that they observed the patient taking the medication:

Not all medications are nurse-administered. For example, some medications are given to patients to take on their own (referred to as Keep-On-Person, or KOP). However, when a physician deems it necessary for a medication to be administered by the nurse, whether in a hospital, nursing home, prison, or other setting, it is the standard of care that the nurse must adhere to certain steps to ensure patient safety. Those steps include verifying that they are giving the right medication to the right patient, and confirming that the patient actually took it.

As a likely by-product of the failure described above, with nurses attempting to deliver medications so late in the night or early morning, with patients potentially asleep, multiple patients report that nurses often toss their evening medications under their door in an envelope. The patients find and take their evening medications when they wake up the next morning. This process obviously violates both of the aforementioned patient safety steps: The nurse is unable to verify the patient by checking his identification (as is required), and because patients may be moved from one cell to another at any hour, it is impossible for the nurse to be sure that he or she has given the medication to the right patient. The nurse, obviously, is also unable to verify that the patient has taken the medication. Moreover, because patients may not get their medications until the following morning, this practice exacerbates the dangerous delay in medication administration described above.

EMCF nurses do not accurately document what has transpired in the patient's medical record:

Based on my interviews with patients and review of records, it continues to be clear that nurses are not accurately recording their medication administration in patients' MARs, as described, for example, in the case of Patient 70 above. *See Figure 3 and Footnote 6.* Notations that patients "refused" their medications are often at odds with what patients reported to me. Even assuming patients really refused, nurses' failure to administer medications without taking steps to address the patients' refusal, by notifying the prescriber, is at odds with acceptable medical practice and EMCF's own policy, in that nurses fail to notify a practitioner[8]. Notations that patients "did not show" are ludicrous in an environment where a patient's location should be known at all times. And the notation that a medication is "out of stock" is simply not credible given the frequency with which it occurs and the fact that most of the medications used at EMCF are very common, easily obtainable, and essential medications. Finally, nurses almost exclusively document that they administered medications at the time they were ordered to be administered. But that is patently false when the Housing Unit Log books and almost universal claims made to me by many patients clearly indicate that nurses have administered medications at 11:00 p.m., 12:00 a.m., 1:00 a.m., 2:00 a.m., or even 3:00 a.m. Such false medical record-keeping can impact patient safety. Other providers rely on a

[8] Policy I-05 requires that "After the third missed dose (consecutive or otherwise) of a chronic or critical medication, the healthcare staff report the medication non-compliance to the medical or psychiatric provider responsible for follow-up. Providers will designate certain medications that require notification when a patient misses or refuses one dose." Policy C-05 requires that, "Healthcare staff will refer patients who refuse their antiretrovirals, hypoglycemics, antihypertensives, and antibiotics three consecutive times to the prescriber. The patient may be referred more quickly if assessed to be clinically necessary. The Medical Director will provide the medication administration staff a list of medications that will be reported if a patient misses a single dose." I have not seen any evidence of such a list, and even if it exists, there is no evidence that nurses use it or report non-compliance to the prescriber.

patient's medical record in making care decisions. If the information upon which they rely is not accurate, the resultant clinical decisions may not be correct, putting the patient at risk for harm.

- The following example from the record of Patient 58 is particularly revealing. Records reflect, and the patient's account to me supports, that his medication was out of stock on April 4 through 18. Yet, a nurse documented that she administered the medication to him on the morning and in the evening of April 7 (as shown by 2 sets of initials marked by the vertical arrow in Figure 4) – a time when the medication was not available to be administered. As such, the nurse's documentation that she administered the medication is highly suspicious for falsification of the medical record.

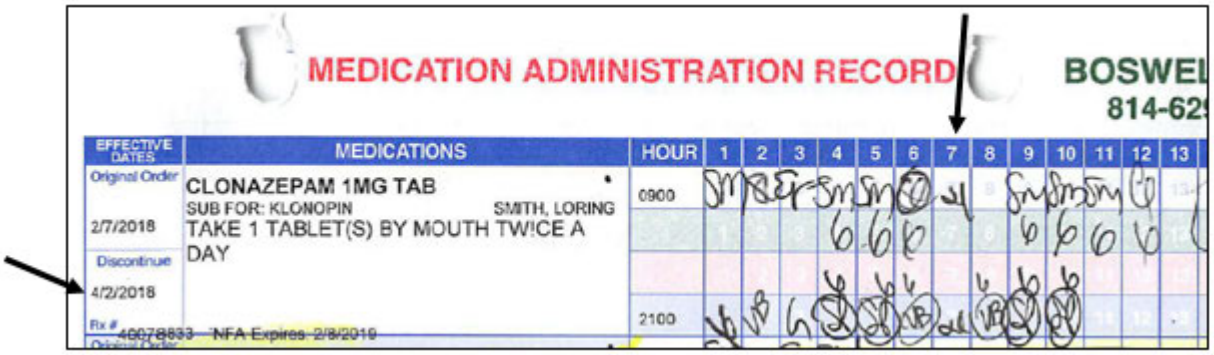


Fig. 4. DEF-POSTTRIAL-003908

This same MAR illustrates another serious nursing error that occurs at EMCF. While nurses at EMCF fail to give medications that are ordered, they also fail to stop giving medications when the order has expired. The diagonal arrow shows that the order for this medication expired on April 2, so nurses should have stopped giving it (or attempting to give it) on that date. Yet, after April 2, nurses continued to behave as if there were a valid order, as indicated by their initials on the top and/or bottom rows on all days from April 3 to April 12 on the figure above.

Finally, though failures in medication administration were by far the most common failure of nursing staff with regard to carrying out practitioners' orders, nurses at EMCF also continue to fail to carry out other types of orders, such as failing to obtain an ordered x-ray for a patient who was ultimately found to have a fractured ankle (Patient 2) and failing to obtain daily blood pressure levels ordered for once per week for a patient with high blood pressure (Patient 18).

In summary, EMCF nurses fail abysmally at administering the medications ordered by practitioners to treat their patients' serious diseases. They failed at this in 2014. They failed at this in 2016. And they fail at this more frequently and in more ways in 2018. That these practices put patients at risk is without doubt. That that risk is just theoretical is, unfortunately, not true. The evidence shows many cases in which these practices caused physical harm and cases in which that physical harm can be plausibly linked to the ultimate price a patient can pay for incompetent health care: death.

7. Failure to Perform Welfare Checks

It is the standard of care in prisons that health care staff must conduct "welfare checks" on all individuals placed in isolation cells (Unit 5 at EMCF). This is important because such housing units

are a high-risk environment resulting in a disproportionately high rate of morbidity and mortality due to the impact of injuries often associated with placement in isolation, for example, from fights or uses of force by officers; the psychological stress of isolation, a particular concern at EMCF given its population of mentally ill inmates; and impaired access to health care that sometimes occurs in this setting, and that routinely occurs at EMCF. A welfare check should be conducted daily to ensure that the health of residents in isolation cells is not deteriorating or to detect early evidence of deterioration so that it can be addressed and reversed before it results in severe harm or death. It is quite easy to conduct a welfare check. A health care staff member asks the resident if they are okay and if they have any health needs, while making sure that residents' appearance and oral responses do not raise any concerns. If the staff member has any concerns, arrangements are made for the patient to receive a more thorough evaluation. Typically a welfare check can be completed in a few moments.

With rare exception, residents I interviewed were consistent in their reporting of the near absence of any welfare checks. Documentation in the medical records of patients spending time in isolation cells, confirms this allegation. For example, as clearly shown in Figure 5 from Patient 17's medical record, nurses conducted a fraction of the checks they were supposed to perform[9]. I found similar examples for Patients 2, 13, 27, 28, and 53.

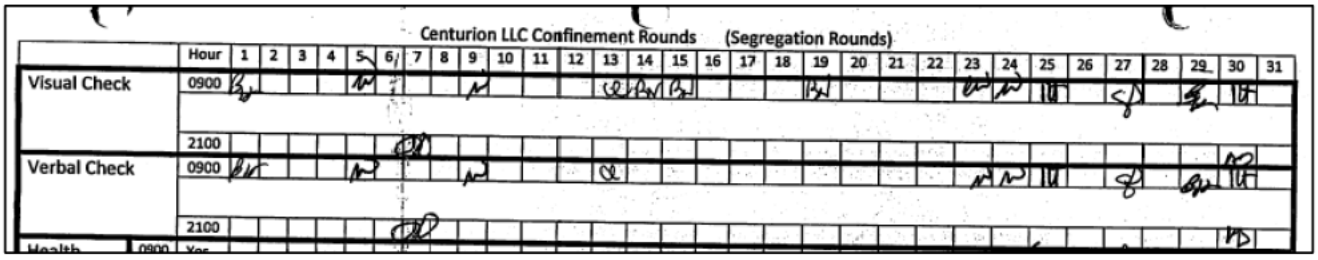


Fig. 5. DEF-POSTTRIAL-008909.

8. Continued Failure to Maintain Patient Confidentiality

A basic tenet of adequate health care is that health care is delivered confidentially. Failure to maintain patient confidentiality not only violates patients' rights, but also puts patients at risk. Indeed, in a system where patients know that confidentiality may not be preserved, patients may demur from sharing key clinical information with staff or avoid treatment (such as treatment for HIV/AIDS) altogether; such gaps in information can result in delayed or missed diagnoses or treatment. Thus, while failure to ensure patient confidentiality violates a basic patient right, it also poses real threats to safe patient care.

In my 2016, report I identified that patient confidentiality is threatened at EMCF due to the system for submitting SCRs. In the isolation housing unit (Unit 5), SCRs are sometimes collected by officers directly from the patient's cell. In general population housing units, patients must either hand their SCR to an officer or another resident, or place the SCR in the crack of the housing unit doorway where officers will collect it later. The officers place the SCR in a box for collection by nurses. In the isolation cell housing unit, therefore, officers can read the SCRs. In the general population housing units, officers can read the SCRs and other inmates can also access them while they are stuck in the door. Some patients in general population informed me that, after handing the SCR to the officer,

[9] The standard of care is to perform 1 check daily. While it appears from the form that EMCF may expect nurses to conduct 2 checks daily, it is clear that on most days nurses performed no checks.

they watch the officer until he places it in the box. While this helps ensure confidentiality for the patients in some of the housing units where the patients are able to view the officers putting the SCRs in the box, due to the location of the box, it cannot be directly viewed from all housing units, and these patients therefore cannot know whether their SCRs are being confidentially submitted.

The problem of non-confidential submission of SCRs continues unabated. The locked boxes in each housing unit into which SCRs are supposed to be placed continue to be located outside the door of the unit. While some patients report having sporadic access to the boxes or that they are able to give an SCR to a nurse during rounds, the vast majority of patients with whom I spoke reported that they must submit an SCR by giving it to an officer or to another inmate. If patients are unable to confidentially report medical concerns, there is a risk that they will not report them at all, and serious conditions and symptoms may go unreported and untreated. EMCF continues to fail to address this problem by placing locked boxes for SCRs on the inside of individual living units where residents can easily access them to confidentially deposit their SCRs.

Thus, patient confidentiality is not adequately maintained at EMCF; there is no penological justification for these gross invasions of privacy, which also impair the safe delivery of health care, placing patients at risk of harm.

9. Continued Failure to Maintain an Adequate Medical Record

Health care professionals must record all significant health care information about a patient in a medical record, given that the medical record is the primary tool for all health care professionals caring for the patient to communicate with one another. The record must be complete and clear so that each user of the record can easily and accurately determine what is known about the patient and what care has been provided. If the medical records is not complete and clear, health care providers make decisions and provide care in a vacuum, resulting in errors. This requirement is so fundamental to adequate care that there is an axiom, “If it isn’t documented in the medical record, it didn’t happen.”

In my previous reports, I described serious inadequacies of the electronic health record (“EHR”) at EMCF, both in the way it is designed and in the way it is used.

The design of EMCF’s EHR makes it difficult to find and read documents. For example, reading a single outside medical record sometimes requires the user to open multiple files, which is time consuming for a busy physician or nurse. Another example is that once-current information is sometimes repeatedly and automatically imported into the medical record for each subsequent contact with health care staff. For example, a chart note may state that a patient had a seizure two weeks ago. While that statement was accurate when first recorded, it may be repeated at each subsequent visit for seizure management – even months and years later – as “the patient had a seizure two weeks ago.” If a user of the medical record does not happen to look back at several previous notes to ascertain that the statement has been in the medical record for a long time, the user may use that information to make a medical decision which is, because it is based on false information, flawed and dangerous.

The EHR is also problematic in the way it is used by staff. For example, administrative staff often scan outside documents up-side down and sideways, making it time consuming for nurses and practitioners to read important information. With potentially dozens of patients to see each day, such inconsistent record management takes valuable time away from patient care and may lead to mistakes in care. These staff also mislabel scanned documents either as to their nature or date and time, which

can either make it difficult to find documents or lead users to make incorrect interpretations and care plans. Problem Lists, the place in an EHR where practitioners are supposed to maintain a current list of the patient's main problems so that other users can quickly know what those problems are, are not always kept up to date. Finally, important documents, such as ER reports and MARs are missing from many patient EHRs altogether. Numerous examples of deficiencies can be found in the attached Case Studies.

In summary, the medical records maintained for patients at EMCF are not complete, accurate, or clear. As a medical and legal record, the EHR at EMCF continues to be inaccurate. As a medical tool, it continues to be inefficient. Nothing has changed since my last visit. As such, the EHR as it is designed and used makes it challenging to safely care for patients housed at EMCF, which in turn puts patients at serious risk of harm.

10. Inhumane and Unsafe Living Conditions

While many of the poor environmental conditions I cited in my previous reports have improved, including a cleaner facility, brighter lighting, and fewer fires, certain inhumane and unsafe living conditions persist. Unfortunately, fires still occur in Housing Unit 5 and elsewhere. In addition, the improvement in lighting was accompanied by the introduction of a new safety risk.

While the old lighting fixtures presented a danger due to inmates' ability to extract metal, these new lighting fixtures present a risk of death by electrocution. As shown in Figure 6, the 120 volt wires are exposed. In the absence of a light switch, the residents have resorted to using the easily accessible wires to turn the lights on and off by connecting and disconnecting the two wires. Clearly there is a significant safety flaw in the design or installation of these fixtures in a prison setting; residents should *not be able* to access bare, live wires. These new fixtures were present in all of the general population housing units I visited.

Fig. 6.

Risk from trauma also continues. Of the 126 EMCF patients who were sent to the ER during the first nine months of this year, 48 were due to injuries (fractures, stabbings, burns, and rape, among others). On a positive note, the absolute number of injuries has decreased compared to the 8-month period from June 2015 to January 2016 covered in my previous report, during which time 89 ER trips were due to injuries.

In summary, living conditions at EMCF have improved in some respects, which deserves recognition. However, EMCF remains a dangerous place to be imprisoned.

11. Lack of Adequate Policies and Procedures

Any complex operation must have a clear set of policies and procedures to guide staff. Policies and procedures are one of the cornerstones of a safe health care operation because they help ensure that

multiple staff members know what they are supposed to do and how they are supposed to do it in order to safeguard patient health. Thus, it is the standard of care in correctional health care that every facility must have a policy manual that is complete, up to date, accurate, and relevant.

The EMCF Health Care Policies and Procedures manual has significantly deteriorated since my last tour in 2016. Despite review by Dr. Arnold in May, it is now replete with nonsense policies, such as policies pertaining to other facilities, which can only serve to confuse the user. It also contains policies that are marked "Do Not Need," yet they remain in the policy manual for employees to use. And the manual contains outdated and conflicting policies. One of these policies instructs staff to use a medication that has been supplanted for the past few years by safer and more effective medications to treat a serious infection. I also found two important policies about refused medications that now directly contradict each other as to when nurses must refer patients to the physician after they refused medication[10]. When staff cannot find correct and clear instructions in their policy manual, they are at risk for making errors in patient care, which puts patients at risk of harm. Such is the case at EMCF.

12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

Regardless of who provides direct health care services at a prison, which in this case is the private company Centurion, it remains a non-delegable responsibility of the government, in this case MDOC, to assure that a minimally acceptable, safe level of health care is provided to the incarcerated human beings under its protection. Based on each of my reviews – especially the current one – MDOC has ignored this responsibility on several fronts.

Poor contract management and oversight:

The contract with the health care vendor is the main tool by which MDOC can ensure that safe health care is provided at EMCF. This requires at least two things: the contract has to contain performance requirements that address, at a minimum, key operations; and MDOC must take action when the contractor violates the terms of the contract.

In my last report, I criticized the serious shortcomings of the contract between MDOC and Centurion with regard to how MDOC is to monitor the safety of medical care provided by Centurion. I identified 3 significant shortcomings. First, the contract only required the vendor to adhere to 11 performance measures. In my extensive experience evaluating and monitoring correctional health care systems, it is impossible to effectively monitor a complex system with only 11 measures. Second, the measures themselves were anemic. Some of the measures assessed activities that are of relatively minor importance. And all of the measures concerned only whether an activity was performed on time, not whether the activity was performed correctly. The contract therefore set the bar for adequate performance dangerously low. For example, one measure required that "Emergent medications are filled and administered within 24 hours of being prescribed." Emergent medications should be filled within *minutes* of being prescribed. Third, the contract required Centurion to conduct peer reviews annually and forward those to MDOC. However, there was no provision in the contract

[10] Policy C-05, Section III.1.d.vi (PDF page 118 of CENT-POSTRIAL-1-458) instructs nurses to refer to a physician patients who refuse 3 consecutive doses of any physical health medication, whereas Policy C-05, Section III.2.k (PDF page 114 of CENT-POSTRIAL-1-458) only instructs nurses to refer patients who miss 3 consecutive doses of antiretrovirals, hypoglycemics, antihypertensives, and antibiotics. (For the former citation, the policy actually contains two different sections, both bearing the designation Section III.1.d; my reference is to the second of these.)

for MDOC to verify the results of peer reviews. MDOC's counsel has represented that the contract with Centurion has not been amended. As such, these deficits in the contract remain unchanged.

With regard to MDOC's response to its health care vendor's failure to perform, here too, nothing has changed. In her trial testimony, MDOC's statewide medical director, Dr. Perry, clearly was aware that Centurion had failed to perform as required under the contract, yet she took little or no steps to ensure adequate performance, failed to impose liquidated damages, and failed to take steps to terminate the relationship with Centurion as allowed by the terms of the contract.

Failure to identify and repair errors associated with deaths (MRs):

As described elsewhere in my report, Dr. Arnold and his Centurion supervisors pay little attention to deaths that occur on their watch. The MRs they conduct are superficial and fail to identify all but a small handful of the multiple serious errors to which the dead patients were subjected, including those errors which may have contributed to the deaths. The responsibility to review all deaths and understand what lessons can be learned from them extends to Dr. Perry, as statewide medical director for MDOC. It is her responsibility to review the MRs submitted by the vendor, ensure they are complete, or supplement them as necessary. Instead, despite the neglect apparent in the MRs for deaths at EMCF on the part of Centurion and Dr. Arnold, Dr. Perry appears to have also attached little importance to the deaths, failing to identify and address the many unidentified errors or compelling EMCF staff and Centurion to do so. In fact, I received no documents indicating that Dr. Perry, or any other MDOC official, even reviewed the MRs.

Abdication of leadership by Dr. Perry:

The likelihood of MDOC being successful at identifying and guiding the repair of the myriad serious problems in health care delivery at EMCF has all but vanished based on the testimony of Dr. Perry. Dr. Perry has been frighteningly disengaged from the medical problems at EMCF. Despite her awareness (and acknowledgement) for 7 years that there are serious problems in medical care delivery at EMCF, when Dr. Perry testified at trial, she had not even bothered to set foot in EMCF…*ever*. As described above, she allowed the contractor to continue to violate the terms of the contract meant to protect the safety of individuals incarcerated at EMCF, and did little if anything to ensure future compliance. I struggle to imagine a clearer signal Dr. Perry could send of her total lack of concern for the safety of patients at EMCF. If this is the attitude of the senior-most clinical authority and role model for EMCF, the rest of the findings in this report come as no surprise. Equally troubling is that her supervisors, knowing this, have continued to allow her to operate in her critically important role.

Recommendations

In short, despite several years of expert reports identifying the precise deficiencies in health care at EMCF that required remediation, those deficiencies persist, and EMCF remains a broken system that places all patients at a substantial risk of serious harm. Based on my years of time assessing the conditions at EMCF, I have concluded that remediation of conditions at EMCF will require, among other reforms, addressing the three large areas of any healthcare operation: leadership, oversight, and resources.

1. It is clear EMCF and MDOC lack leadership and oversight. Thus, while MDOC would benefit from selecting and coaching a new state-level medical director who oversees EMCF and reports

directly to the Secretary, at a minimum, I believe it would be beneficial to install an independent health care professional with the appropriate amount of authority to serve as both a consultant to MDOC as well as a monitor of performance at EMCF.

2. The independent person would, with the Court's approval, also develop a set of performance measures against which EMCF's success at meeting minimally acceptable standards would be measured. This set of performance measures would measure various elements of structure (e.g., number of personnel), process (i.e., whether necessary tasks are completed and completed in a timely manner, such as whether medications are administered as ordered), and outcome (i.e., clinical encounters and medical reasoning are appropriate and disease control is good, such as urgent care visits are clinically appropriate, and blood pressure among hypertensive patients is well controlled).

3. If MDOC retains a vendor to provide health care at EMCF, the contract with the vendor would need to be revised to assure that it is designed to produce the performance described above.

4. The main resource that may be lacking at EMCF with regard to safe delivery of health care is sufficient number and quality of health care and custody staff. I defer recommendations for assessing and improving custody staffing deficiencies. With regard to health care staff deficiencies, MDOC will need to conduct a staffing analysis. If staffing is insufficient – which is highly likely – MDOC will also need to conduct a salary analysis. That analysis should assure that salaries offered at EMCF are competitive with other health care venues in Mississippi where intense health care is provided to a challenging and complex population, taking into account the additional challenges of working in a prison environment.

The urgent need for corrective action at EMCF is best summarized by the death of Patient 69, who likely died from failure to receive his seizure medications. Patient 69 is the most recent individual to die at EMCF and his case highlights the most lethal pairing of conditions that can exist in a health care operation: dangerous operations and the inability to identify and fix those operations. In the months prior to Patient 69's death, 4 other patients who died at EMCF suffered from repeated failure to receive necessary medications for serious conditions. In fact, for two of those patients, the medications they failed to receive were the very same types of medications that Patient 69 failed to receive – seizure medications. Yet, despite this repeated "banging at the door of sensibility," EMCF and MDOC remained deaf. That Patient 69 would, most likely, die of failure to provide his medication – and that other patients in the future will die from this and other errors – is predictable. That that state of the affairs is preventable, is tragic.

Marc F. Stern, MD, MPH

Attachment 1

Case Studies

Case Studies

As with my prior reports, I have included summaries of my interviews with patients and medical record review supporting the findings and conclusions in my report.

With respect to the scope of each summary, as with my 2016 report, I tended to review limited, recent aspects of care in order to provide the most up-to-date analysis of medical conditions at EMCF. As a result, I do not provide a complete medical summary of the cases below, but instead, focus on key errors that largely occurred in 2018. Most cases have additional errors in care that I did not capture below.

With respect to the contents of each summary, in the "Medical Record Review" section, I have recorded the clinical events themselves, as described in the patient's medical record, in normal-faced type. Where I note a specific "Medical History," these are the significant medical diagnoses I have gleaned from a review of the medical record; I listed mental health diagnoses only if they are relevant to the case review or if the patient died. I described the problem or problems with the care delivered during each event, along with the reason the care is problematic, if it is not obvious, in italics. Following that, I cited the category of the error, wherein the number cited corresponds to the relevant section of this report (see table below). Finally, where needed, and only with regard to findings from the patient's medical record review, I noted high-level conclusions as to the key errors in each case in a "Summary of Problems" at the bottom of each case study.

Table of error types cited in the Case Studies (these categories correspond to the numbered Sections of the report)

Category 1. Continued Lack of Access to Urgent Care
Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (RN/LPN/NP/MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 7. Failure to Perform Welfare Checks
Category 8. Confidentiality
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category 10. Inhumane and Unsafe Living Conditions
Category 11. Lack of Adequate Policies and Procedures
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor
Category Other. Continued failure to carry out orders other than providing medication. Though not assigned as a separate Section in this report, in my previous reports, I described how it is important for nurses to carry out non-medication-related orders, and found a continued failure to do so in 2018.

Patient 1
Housing Unit 3

Medical Record Review

7/2 The patient was stabbed in the face, arm, neck, and back. The nurse dressed the wounds.

The nurse failed to describe the wounds (size, depth). [Category 4 (RN) error]

The nurse failed to provide the patient any education about managing the wounds. [Category 4 (RN) error]

Most importantly, the nurse made no arrangements for follow-up care for the wounds. The patient's wounds were ignored from this point on by medical staff, putting him at risk of infection. [Category 4 (RN) error]

Summary of Problems

Category 4 (RN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of key errors.

Patient 2
Housing Unit 5A

Medical Record Review

1/3 The patient was seen by an RN due to an injury to his ankle: another resident had hit him with a metal bar. The RN contacted Dr. Arnold who instructed her to "visually assess[]" the ankle, wrap it, and put him on the list for an X-ray.

An acute injury such as this requires more than a visual assessment, thus Dr. Arnold's instruction was poor. The nurse failed to do any assessment, even a limited visual one (as noted in my report, and relied on in these case studies, if an action is not documented in the medical record, it is proper to conclude it did not occur). Clearly Dr. Arnold's orders on how to manage the patient, having been given prior to the nurse's assessment, were based on insufficient information to result in a safe decision. Finally, in the absence of an adequate evaluation, the presumption needed to be that the ankle might be fractured, in which case Dr. Arnold failed to instruct the nurse to order the ankle immobilized and the patient instructed not to walk on it, failures which could make a simple fracture more serious. [Category 4 (MD & RN) error; Category 10 (Inhumane & Unsafe) error]

1/5 The patient was seen again in clinic by an RN. His ankle was swollen, very painful, and was now suspected to be infected. He was sent to the ER.

In the interim after his initial evaluation, the patient was ignored; an X-ray was not done as ordered. [Category 2 (Non-Urgent Care) error; Category Other (Orders) error]

1/6 The patient returned from the ER where a fracture of the fibula (lower leg bone) was diagnosed.

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 4 (RN & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 10. Inhumane and Unsafe Living Conditions
Category Other. Continued failure to carry out orders other than providing medication.

Poor management of this patient's ankle trauma by both the physician and the nurse delayed attention to both a fracture and a wound near the fracture. This put the patient at risk for permanent dysfunction from a poorly healed fracture (fractures should be immobilized right away and the patient should not walk on the fracture until it has healed), and from infection. Further, when an infection occurs near a fracture, it can spread into the bone, which is a serious complication resulting in the need for weeks of intravenous antibiotics and possible surgery.
Though not assigned as a separate category in this report, in my previous reports, I described how it is important for nurses to carry out non-medication-related orders. The nurse's failure to execute Dr. Arnold's order to visually assess the patient's ankle added to risk and is an example of an error of this type. Finally, this injury should not have happened in the first place: the patient was housed in the most secure living unit of the prison where, if a safe environment had been maintained by custody, another resident should not have had access to a "metal bar."

Patient 3
Housing Unit 1A

Medical Record Review

Medical History: Gastroesophageal reflux disease ("GERD")
38 years old

The patient submitted an SCR. Though the log shows the SCR was submitted on 7/13, I believe it was either written as 9/13 and misread, or the patient was confused about the date he wrote on the SCR. He was seen on 9/15, which is acceptable.

Patient 4
Housing Unit 6A

Medical Record Review

According to the Sick Call Log, the patient submitted an SCR which was received on 9/1, after which the patient was scheduled to be seen on 9/2, but for which he was a "No Show."

According to the medical record, the SCR was received on 9/2, and the patient did not "No Show," but was in fact seen on 9/3. The medical record and the Sick Call Log contradict each other, and thus 1 of these 2 official records is wrong. [Category 9 (Medical Record) error]

The medical record also shows that, during the 9/3 visit with an RN, the RN failed to conduct any further inquiry into the patient's diarrhea, other than to ask how long it had been going on. Questions such as whether or not there was blood, the number/volume of stools per day, or whether the patient was now lightheaded upon standing, are important questions for leading to a correct diagnosis and safe care plan. Further, beyond vital signs, the nurse failed to conduct any physical examination, which is also unsafe. [Category 4 (RN) error]

Summary of Problems

Category 4 (RN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record

See the notes in italics for a summary of key errors.

Patient 5
Housing Unit 1C

Medical Record Review

5/22 The patient submitted an SCR for possible "staff" infection.

5/23 The SCR was received and logged as "Urgent."

5/24-6/1 The patient was scheduled to be seen on 5/23, but this appointment was cancelled and rescheduled to 5/24 due to custody (a facility lockdown). The same thing happened for his appointments on:

5/24 (rescheduled to 5/25 due to facility lockdown);
5/25 (rescheduled to 5/26 due to facility lockdown);
5/29 (rescheduled to 5/30 due to facility lockdown);
5/30 (rescheduled to 6/1 due to facility lockdown).

No visit took place on 6/1. On 6/5, the SCR was marked "Resolved."

I could not tell if the patient was actually seen for this on 6/5 or a nurse just assumed it was resolved. He was seen for a different problem on 6/5 (which itself was pursuant to an SCR submitted 5/21), so it is conceivable that the indication "Resolved" was legitimate, but documentation of how it was determined that the problem was resolved is lacking. [Category 9 (Medical Record) error]

Thus, for a potentially life-threatening problem (a possible staphylococcal infection), the patient was not seen for 2 weeks. That the medical staff had subjective knowledge of the

seriousness of the problem is demonstrated by their marking of the need as "Urgent" on the Sick Call Log, yet, nothing was done to treat his condition urgently. For the period from 6/1 to 5, medical staff did not even bother to try to see him. Finally, the same patient was ignored for a different problem (back pain) for 2 weeks also. [Category 2 (Non-Urgent Care) error]

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 9. Continued Failure to Maintain an Adequate Medical Record

This patient had a medical problem (possible staphylococcal infection) which can be serious for the patient and others around him, and which medical staff correctly identified as an urgent need, yet the patient's access to medical care was dangerously delayed by custody staff, who failed to transport him to his appointment numerous times, and medical staff, who then failed to see either insist on custody transportation or see the patient at his bedside.

Patient 6
Housing Unit 2D

Medical Record Review

Medical History: Hypertension
30 years old

Dec. 2017 *Nurses failed to administer 12 scheduled doses of his hypertension medications in December 2017. [Category 6 (Medication) error]*

1/19 The patient had a CCC visit with an NP (nurse practitioner). At that point, he was on 2 medications for hypertension (lisinopril and HCTZ). His blood pressure was 133/89 (slightly elevated). She ordered for his medications to be continued and to return to clinic in 6 months.

The NP failed to note the nurses' failures to provide the patient medications prior to the visit. This is a particularly important error in light of the patient's abnormal blood pressure, so blood pressure control could be expected to continue to be poorly controlled. [Category 4 (NP) error]

Jan. 2018 *Nurses failed to administer 17 of 31 doses of his hypertension medications in January, some shown as "refused," some as "No Show." [Category 6 (Medication) error]*

Nurses failed to notify a practitioner regarding any of the missed doses of medications in December 2017 or January 2018. [Category 6 (Medication) error]

2/9 At 11:25 a.m., the patient complained of chest pain and was brought by custody to the clinic. He was agitated. His blood pressure was 210/140 (normal <120/80).

The RN conducted no examination other than measuring the patient's vital signs, and the NP did not correct this deficit when she became involved. [Category 1 (Urgent Care) error; Category 4 (RN & NP) error]

An NP gave a verbal order for an emergency blood pressure medication (Clonidine 0.1mg). The RN noted that an EKG was normal.

There is no EKG in the medical record on 2/9. I was unable to determine if one was not done or was done but never placed in the medical record. [Category 4 (RN & NP) error or Category 9 (Medical Record) error]

At this point, the patient was acutely ill with a very dangerously elevated blood pressure, and while making an effort to reduce the blood pressure was appropriate, evacuation to the ER should have been ordered by the NP at the same time. All these symptoms may have been a sign that his heart attack had begun; at the very least his heart was likely not getting enough blood. [Category 1 (Urgent Care) error; Category 4 (NP) error]

At 12:45 p.m., his blood pressure was 150/110. He still had chest pain ("slight"), but now also had shortness of breath. An NP gave an order for the patient to be given nitroglycerine and aspirin. Fifteen minutes later he no longer had chest pain, but his lungs now hurt. The patient demanded to be taken out (presumably to a hospital) and became increasingly agitated. He was moved to the medical holding tank for agitation, and someone contacted a mental health ("MH") NP. The MH NP noted that this agitation is very unusual for this patient and is centered around the patient feeling that not enough was being done for him. At 2:30 p.m., he was given Haldol (and anti-psychotic medication) and Benadryl.

The patient's emergency need for transport to the ER continued throughout this period, despite the reduction in chest pain. Further, the ordering of nitroglycerin and aspirin was proof of a subjective awareness on the part of the NP that a heart attack was very possible. Despite these apparent concerns about a possible heart attack, and a blood pressure which, when last checked at 12:45 p.m., was still dangerously elevated, no nurse checked this patient's blood pressure or other vital signs any more on this day or the next. (The MH NP noted begin told by a nurse that his vital signs at some unspecified time on the afternoon of 2/9 were 180/60, oxygen level 98% (normal) however, there is no such recording by a nurse, and even if true, changes nothing as this blood pressure was still high and requiring of attention.) [Category 1 (Urgent Care) error; Category 4 (RN) error]

2/11 At 3:34 p.m., the patient was "brought to medical" for chest pain. He was seen by an RN who planned to perform an EKG, but didn't perform it until 4:27 p.m., almost an hour later. It showed that the patient had had 2 heart attacks. At a certain point, the RN notified an NP that the patient was having a possible infarct (heart attack). At 4:44 p.m., the patient was sent to the ER by state van. In the ER, it was determined that the patient was probably having an acute anterior myocardial infarction (heart attack) and was rushed to the cardiac lab where a STEMI (heart attack) was confirmed.

A patient this acutely ill should have been sent to the ER by ambulance as he was unstable and his heart might have stopped at any point. Sending the patient by state van was very dangerous. [Category 1 (Urgent Care) error; Category 4 (NP) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care

Category 4 (RN & NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record

This case demonstrates a life-threatening outcome as the result of multiple errors on the part of multiple EMCF medical staff. To begin with, staff failed to administer blood pressure medications as ordered over a period of weeks. Nurses never notified the practitioners of these missed medications, nor did the NP who saw the patient in CCC bother to assess the patient's medication compliance, and thus, ignorant of the lack of medication administration, took no steps to address it during the CCC visit. This predictably led to a dangerous rise in the patient's blood pressure, which likely contributed to or caused a heart attack. When the heart attack (or reduced oxygen starvation in the heart, which precedes a heart attack) first became evident on 2/9, in the form of chest pain, shortness of breath, and elevated blood pressure, 2 NPs in a row failed to take appropriate action. Instead, they turned the patient over to the MH team. Both the medical and MH teams ascribed the patient's extreme agitation over not receiving appropriate medical care, as onset of a new MH disease. This was an illogical decision, as it would be unusual for a patient with no previous mental illness to suddenly develop a MH disease at age 30 at the same time he also had clear indications he was experiencing physical health disease. It was therefore a dangerous decision because it led medical staff to stop seeking a medical explanation for his symptoms. Medical staff indeed then ignored the patient for the next 2 days until, once again, he complained of chest pain. Even then, it took medical staff an hour to send the patient to the ER, by van, where he was rushed to the cardiac lab and his acute heart attack was finally treated. It is likely that each of these various errors contributed to this unfortunate outcome. Further, it is very possible that proper intervention on 2/9 could have avoided a heart attack, and that timely intervention on 2/11 could have reduced the amount of heart damage in this 30-year old man.

Patient 7
Housing Unit 1C

Medical Record Review

Medical History: Blood clots (deep vein thrombosis or "DVT"), high cholesterol, hypertension
51 years old

2/13 At 12:35 a.m., an RN saw the patient for "feels like something stuck in chest." His vital signs were stable. She called the NP, who gave an order for Mylanta.

The RN failed to conduct any physical examination, which was necessary to exclude more serious conditions, yet the NP failed to correct this error by asking for such an examination, thus forming a diagnosis with insufficient information, which was dangerous. The RN also failed to make any plans for follow-up. It is very likely that the patient's symptoms at this point were indications of the heart problems that would be identified the next day. Adequate examination at this time may have led to the discovery of these problems, in which case, the patient would have needed immediate evacuation to the hospital. Therefore, any delay caused by the inadequate evaluation at this point put the patient at great risk. [Category 4 (RN & NP) error]

At 12:00 p.m., the patient had a visit with an NP. The NP learned that he had felt a heaviness in his chest the previous night and that he "doesn't take his medications every night" because the nurses come too late. Her examination failed to include a basic cardiac examination (except for checking for distended neck veins and edema). She ordered an EKG, which showed a heart attack of unknown age and that the heart muscle might not be getting enough blood. She also drew a blood test for a heart attack (troponin), which came back 1 hour later and was abnormally elevated. She sent the patient to the ER by state van. The patient was admitted to the hospital due to chest pain. He was found to have severe cardiac weakening (a severe systolic dysfunction, with an ejection fraction=15% (normal >55%)).

An examination of a patient with heart-related symptoms must include a direct examination of the heart, which the NP failed to do. [Category 4 (NP) error]

A patient who may be having a heart attack should have been sent to the ER by ambulance as his heart might have stopped at any point. Sending the patient by state van was very dangerous. [Category 4 (NP) error]

The EKG which apparently was performed is missing from the patient's medical record. [Category 9 (Medical Record) error]

The patient readily reported to the hospital staff that he had a history of heart problems with at least 2 previous admissions for cardiac reasons, and catheterizations, so staff at EMCF should have known of this history, but, based on his medical record, obviously did not. [Category 4 (NP) error]

Summary of Problems

Category 4 (RN & NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record

In a patient with his risk factors and age, the patient's presentation just after midnight was highly suspicious for a heart attack or impending heart attack. The nurse's and NP's grossly incompetent handling of the patient at that time put him at grave risk of permanent damage to his heart, if not sudden death, during the ensuing 12 hours until he was finally sent to the ER. The nurses compounded their errors by sending him to the hospital in a state van.

Patient 8
Housing Unit 3B

Medical Record Review

5/25 HbA1c, a test for diabetes control, returned a result of 14.3% (extremely high; normal <5.7%). This result was officially acknowledged by an NP on May 28.

The MAR for May showed that nurses delivered only 5 of 62 scheduled doses of the patient's insulin. When the NP noted the extremely abnormal diabetes test result, rather than look at the patient's MAR (which clearly explains that the patient's diabetes was out of control

because he had not been getting his insulin), the NP simply increased his other diabetes medication (metformin, a pill). Not only would this increase in dosage, predictably, not solve the problem because of the lack of insulin, it also made no sense because the nurses were also failing to administer the metformin (they missed 11 of 31 scheduled doses of this pill medication during the month of May). [Category 4 (NP) error; Category 6 (Medication) error]

The May MAR was sent to Dr. Arnold for review. He signed it, yet despite the startling and troubling information it contained, ignored nurses' failure to treat the patient's diabetes and did nothing. In the absence of any action on the part of Dr. Arnold (or the NP or anyone else), the patient continued to get almost no insulin in June, July, or August. And Dr. Arnold continued signing off on the MARs that clearly showed this. [Category 4 (MD) error; Category 6 (Medication) error]

8/23 The patient had a CCC visit with Dr. Arnold. The patient reported a history of chest pain for a few months with left-sided pressure which radiated into the left arm. He denied shortness of breath. The patient has a history of high cholesterol, hypertension, and diabetes (on insulin). His examination was normal. The doctor ordered routine lab tests and an EKG. Later in the day, his blood sugar registered on a meter as "high" and so the patient was sent to the ER by van.

This emergency requiring evacuation of this patient to the ER was wholly predictable. He is a patient with diabetes, on insulin, for whom nurses had administered a miniscule fraction of the patient's scheduled doses of insulin (as well as missing many doses of his metformin). Moreover, it was preventable; Dr. Arnold had the information necessary to take action, but took none. [Category 4 (MD & NP) error; Category 6 (Medication) error]

Summary of Problems

Category 4 (NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

Nurses failed to provide this diabetic patient with most of his ordered insulin doses for months on end, which an NP and Dr. Arnold ignored, finally resulting in the patient's blood sugar rising so high that it could not be measured, putting the patient at risk of short-term risk of death from elevated blood sugar, and required emergency evacuation to the ER.

Patient 9
Housing Unit 1A

Medical Record Review

Medical history: Asthma, hypertension
25 years old

The patient's problem list, which is supposed to list his medical conditions, was blank. I was forced to glean the above diagnoses from elsewhere in the medical record. The problem list is

a key tool in patient management and needs to be populated and up-to-date. [Category 9 (Medical Record) error]

8/20 At 3:02 p.m., an RN saw the patient due to a complaint of chest pain after playing basketball. He reported severe chest pain on inspiring (breathing in). His blood pressure was 150/100 (elevated), but other vital signs were normal. An EKG was reported as near normal (normal sinus rhythm with premature atrial contractions). The nurse conducted no examination. She contacted Dr. Arnold who ordered the patient sent to the ER by van.

While heart problems are not common in 25 year olds, they can occur, and other serious conditions which can present with similar symptoms, are not that uncommon (e.g. ruptured lung). In the absence of any examination [Category 4 (RN) error], sending the patient to the hospital by van, rather than ambulance, was unwise, [Category 4 (MD) error].

Scanned documents in the medical record are also out of order, which would make it very difficult for users of the record to understand the care delivered. [Category 9 (Medical Record) error]

Summary of Problems

Category 4 (RN & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record

See the notes in italics for a summary of key errors.

Patient 10
Housing Unit 4D

Medical Record Review

Medical History: Negative (no conditions of note)
55 years old

5/4 An RN conducted a scheduled blood pressure check. She states that the patient passed out earlier in the day and that another RN told him to complete an SCR and turn it in to be seen. For the current visit, there is no exam or vital signs check or other action taken.

The nurse who first encountered the patient earlier in the day with this potentially life-threatening symptom needed to conduct an evaluation at that time, but failed to do so. [Category 1 (Urgent Care) error; Category 4 (RN) error]

Similarly, the second nurse also needed to conduct an evaluation, even though the original purpose of the visit was a scheduled blood pressure check. [Category 4 (RN) error]

5/4 The patient submitted an SCR: "On the 3rd of May my chess started hurting really bad to the point I passed out and broken into a clamy sweat [*sic*]."

5/7 An RN saw the patient for the above SCR. His blood pressure was 121/90 (slightly elevated). The nurse did not solicit any further details about his symptoms and related history, other than confirming that he had no previous conditions of note in the past. She referred him to an NP on a non-urgent basis.

Given the information in the SCR, the patient should have been triaged to be seen immediately. Instead, he was not seen until 3 days later. [Category 2 (Non-Urgent Care) error]

The nurse's evaluation was wholly inadequate, both in terms of eliciting a history of the problem as well as conducting an examination. Moreover, in the absence of more information, these symptoms in a 55-year old male, evokes a serious problem, such as a heart attack, until proven otherwise. As such, the nurse should have referred the patient to a practitioner immediately, not as a routine referral. [Category 4 (RN) error]

5/15 The patient was finally seen by an NP. He reported severe chest pain on and off for 1 year. He also reported shortness of breath, dizziness, and blurred vision at times (he denied radiation of the pain or a history of trauma). His examination was normal. The NP ordered an EKG (which was done the same day and was normal) and a blood test for heart damage (troponin).

Despite the fact that the nurse had subjective knowledge of the risk of a serious heart problem (inferred from her ordering an EKG and troponin blood test), she failed to conduct a basic examination of the patient's heart (except for checking neck vein distention). She also failed to order any further work up of these symptoms or schedule a follow-up. [Category 4 (NP) error]

9/6 At 10:42 a.m., the patient was seen by Dr. Arnold following a "Man Down"; he had been found on the ground and was sluggish but responsive, with cool and clammy skin. He reported to Dr. Arnold that he had lost consciousness. The patient also reported to Dr. Arnold that this had happened once before, about a month earlier, at which time he had been brought to the medical unit. Dr. Arnold noted that he did not have "any medical conditions that are predisposing morbidities." But, at the time of the visit, the patient had some chest pain and shortness of breath. During the visit, multiple attempts to get an EKG failed due to equipment malfunction. The patient was given oxygen, but no nitroglycerin or aspirin. He remained in the medical unit for another 2 hours while Dr. Arnold was apparently waiting to see what would happen to his chest pain and waiting for an EKG, at which point he was finally sent to the ER by ambulance.

Dr. Arnold's decision to wait 2 hours before sending the patient to the ER was unwise. Two episodes of chest pain with loss of consciousness in a 55-year old male is a worrisome finding, and even a normal EKG or resolution of the chest pain would not have erased the need to send the patient to the ER for cardiac evaluation. [Category 4 (MD) error]

9/6 The patient returned from the ER and was seen by Dr. Arnold. His blood pressure was 162/94 (moderately elevated). Dr. Arnold made no plans for follow-up care.

Scanned documents in this patient's medical record are misfiled. The biggest problem is that documents are filed sideways or upside down and that the documents are timed and filed in the record at 00:00, not the time of service. This makes it difficult for medical staff who need

to understand the patient's antecedent care to easily find and read documents that aid them in caring for the patient. [Category 9 (Medical Record) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 4 (RN, NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record

Nurse after nurse and an NP ignored or mismanaged various symptoms (passing out, chest pain, shortness of breath, dizziness) which can be signs of serious disease in a 55-year old. He eventually had an emergency event during which he became unconscious and required evacuation to the ER. This latter event was mismanaged by Dr. Arnold, both before and after the patient was evaluated in the ER. Each of these errors put the patient a risk of harm, and it is very possible that, but for the poor care provided by the nurses and NP, the emergency could have been prevented.

Patient 11
Housing Unit 1D

Medical Record Review

Medical History: Hypertension, asthma
53 years old

9/13 At some time prior to 4:31 p.m., the patient was seen in the medical unit due to chest pain and shortness of breath. An LPN recorded that the patient reported pain as "0/9" [*sic*]. It was sharp with deep breaths and felt like there was something in the middle of his chest. The patient said that nothing seemed to help the pain. At some point, he was given a stat (urgent) dose of aspirin. There are 2 nursing notes citing his complaint, but no one examined the patient. At 4:31 p.m., an EKG was performed. It was of very poor quality, but the computer interpreted it as highly abnormal, possibly indicating a heart attack or inflammation to the heart (ST elevation, possible early repolarization, pericarditis, or injury). Dr. Arnold signed off immediately. At 4:50 p.m., Dr. Arnold ordered the patient sent to the ER by van.

While it is good that Dr. Arnold times his signature and that that time indicates that he read the EKG immediately, given that Dr. Arnold was present and that the patient was unstable and at high risk for a heart attack, it is surprising that Dr. Arnold did not examine the patient (in fact no one examined the patient, other than measuring vital signs). More importantly, given the high risk that the patient's heart might stop during transport, sending the patient by state van was very dangerous. [Category 4 (MD) error]

No ER diagnosis is available, but the patient was released the same day.

Summary of Problems

Category 4 (MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of the key error noted.

Patient 12
Housing Unit 1C

Medical Record Review

Medical History: Arthritis, coronary heart disease, congestive heart failure, emphysema, hypertension, high cholesterol
47 years old

8/29 The patient submitted an SCR for bilateral leg swelling.

This is an urgent problem, yet he was not seen for it until 9/2. [Category 2 (Non-Urgent Care) error]

9/2 An RN saw him in clinic. His vital signs were measured (140/90 pulse 91). The nurse concluded that he had "Muscle pain/sprain-mild" and instructed him to take Tylenol and to elevate his legs. She said she would refer him to a practitioner if the pain was unrelieved.

Other than the measurement of vital signs, the nurse failed to conduct absolutely any examination. It is impossible, in this situation, to arrive at a valid diagnosis in the absence of further questioning and at least a cursory examination. [Category 4 (RN) error]

Moreover, the diagnosis the nurse arrived at was wholly inappropriate, thoughtless, and virtually clinically impossible (neither muscle pain nor a mild sprain could possibly cause swelling of both legs). The more likely possible diagnoses at that point included conditions (such as blood clots or heart failure) that required urgent – if not emergent – referral to a practitioner. [Category 4 (RN) error]

9/6 The patient was seen by NP an NP. His examination was normal except he had "2+ pitting" (moderate) bilateral edema of the legs. The NP's diagnosis was "edema" for which she prescribed a water pill and leg elevation. She instructed the patient to return if needed.

The NP's evaluation was incomplete. She failed to elicit key information, such as how long the edema had been going on, or other symptoms, e.g. chest pain and exercise tolerance, that might shed light on the underlying cause. Further, "edema" is not a diagnosis. It is a physical sign that can be the result of a variety of diagnoses, some more serious than others (e.g. heart failure, blood clots). Thus, given that the NP was unable to find a diagnosis, her plan to ignore the patient unless he wanted to return was risky. [Category 4 (NP) error]

9/17 The patient submitted an SCR because his right foot was still swollen, and he was out of 1 of his medications for asthma (ciclisonide; Alvesco®).

9/20 He was seen by an RN in clinic who found that his legs were still swollen. In addition, he suffered from orthopnea (shortness of breath when lying down). His vital signs were: 135/84; pulse 114 (moderately elevated); respirations 18; blood oxygen 94% (below normal); weight 208 lbs. (abnormal because it was up from 199 lbs. 2 weeks earlier). The RN ordered a follow-up visit with a practitioner within 7 days.

This evaluation was wholly inadequate. The symptoms the patient was presenting with (leg swelling and shortness of breath) were, by themselves, worrisome. The additional findings of a racing heart, low oxygen level, and rapid accumulation of fluid (increased weight), should have further heightened the nurse's concern that the patient might be suffering from a serious heart problem. Despite this, other than vital signs, the nurse conducted no physical examination, and, more importantly, failed to refer the patient to a practitioner emergently or send him to the ER. [Category 4 (RN) error]

9/21 Dr. Arnold signed off on the previous nurse encounter recorded on the SCR.

He, too, should have recognized the urgency of the patient's condition, and upon reading the nurse's note, should have immediately seen the patient. Instead, he did nothing. [Category 4 (MD) error]

9/21 At 5:48 p.m., the patient presented to the clinic with leg pain. He was seen by an NP. His edema was now increased to "4+" (severe). He was finally sent to the ER. He was sent by state van, which is reasonable.

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 4 (RN, NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

This patient developed leg swelling, which, in a patient with a history of heart failure, often indicates worsening heart failure or other serious heart or circulatory conditions, and requires rapid attention. Instead, access to care was delayed, and when the patient did access care, the nurse failed to recognize his complaint for the serious condition it was, as did the NP who saw him a few days later. The symptoms persisted, and several days later, when he was now even sicker (his heart was racing, his blood oxygen level was low, and his body had accumulated several pounds of fluid, likely due to the heart failure), not only did another RN fail to recognize the seriousness of his condition, Dr. Arnold also ignored it when reviewing the RN's work. By the next day, the patient's condition became so severe that staff finally appreciated the danger, sending him to the ER. Not only might proper care during the previous 3 weeks have prevented the deterioration of his heart necessitating emergency treatment, but during that period he was at risk for rapid deterioration and death.

Patient 13
Housing Unit 5B

Medical Record Review

Medical History: Ulcerative colitis

28 years old

8/25 The patient submitted an SCR for "passing blood, bunch, diarrhea, feel week."

He was not seen for this until 9/28 which, for this set of symptoms, is dangerously long. [Category 2 (Non-Urgent Care) error]

8/28 He was seen by an RN. He reported bloody diarrhea 6 to 8 times per day with a lot of blood. His heart rate was 105 (slightly elevated). The RN referred him to be seen by an NP the same day.

The NP visit was cancelled (actually marked "No Show") due to custody transportation problems. Given the urgency of the visit, cancellation was an unacceptable and dangerous outcome. [Category 1 (Urgent Care) error]

At 10:30 p.m., the patient came to the medical unit to have his blood pressure checked because "it had been running high." His blood pressure was normal (122/74), but his heart was racing (122, normal generally <100). He informed the RN that he had not yet been seen by the NP. He again reported passing black stools (at least "a gallon of blood"). The nurse wrote that she "Instructed him to turn in another sick call. He stated that that would cost another $6. He couldn't afford that, turned and walked away. Returned to cell."

The nurse should have contacted a practitioner immediately because a rapid heartbeat in the face of a report of bloody stools suggests the patient may be experiencing life-threatening internal bleeding. The nurse's blatant disregard for a serious condition was reprehensible. [Category 4 (RN) error]

9/3 The patient presented to the RN with a complaint of severe abdominal pain and red blood in his stools. His vital signs were normal. The nurse referred him immediately to the NP who conducted a full examination. She noted that some tests were ordered on August 28 (CBC, occult blood in stool, H. pylori) and that she would follow up.

There is no indication that this visit was in response to an earlier SCR, but was rather a de novo attempt on the part of the patient to get attention for his condition. Given the patient's condition, the NP needed to check the results of the tests right away and should also have checked for significant blood loss (by measuring orthostatic vital signs – blood pressure and pulse measured lying and standing which can provide valuable information when fluid or blood loss is suspected). Further, the tests results from 8/28 were already available at that moment (they showed that he did, in fact, have blood in his stool; the other tests were negative). There is no evidence the NP ever followed up on the test results. Further, she also needed to arrange for follow-up very soon (e.g. the next day) and consultation with the physician. She did not. [Category 4 (NP) error]

9/6 The patient was seen by Dr. Arnold for a burn to the hand. Dr. Arnold noted the bloody stool issues in his notes. He scheduled him for follow-up in 2 weeks.

Follow-up in 2 weeks was not a reasonable plan given that the patient's symptoms continued and medical staff were not providing the patient specific treatment for those symptoms. Thus, there was no reason to think the symptoms would improve. [Category 4 (MD) error]

9/11 At 5:30 p.m., the patient was found on the floor of his cell (according to the ER record, he lost consciousness on the toilet). His heart was racing considerably (pulse 148). He was sent to the ER by ambulance. A CT scan was performed in the ER showing that he had acute colitis (inflammation of the colon). His blood level was now markedly low (hemoglobin 9.3, normal > 12, hematocrit 27.4, normal ?34.6). Due to the fact that he was actively bleeding internally, he was placed in the ICU and given blood transfusions.

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 4 (RN, NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

This patient's case should have had more aggressive management from the beginning, when he started to complain of bleeding, including a more complete measurement of vital signs (orthostatic vital signs) and more frequent and closer follow-up. The hospitalization may not have been avoidable, but it might have been managed less acutely, and more importantly, this could have been ended with a much worse outcome, e.g. trauma, such as head trauma, from a loss of consciousness, of even death from blood loss before the patient reached the hospital.

Patient 14
Housing Unit Unavailable

Medical Record Review

Medical History: Lung cancer, GERD, hypothyroidism, asthma, alcohol abuse
57 years old

2/15 Dr. Arnold saw the patient to follow-up on a chest X-ray conducted a few days earlier for acute exacerbation of asthma. There was a shadow, suggesting a mass. Dr. Arnold referred the patient for a CT scan.

2/17 The patient was seen in CCC by an NP. She recorded that he had woken up with asthma symptoms "x 7," though it is not clear from her note over what period of time those 7 episodes happened. The patient reported to the NP that he had run out of asthma medications. His heart was racing (pulse 120). He had wheezing in both lungs. The NP ordered follow-up in 1 month.

The patient was on a steroid inhaler, at a dose of 2 puffs twice a day. Given his symptoms, the NP needed to make a change to his medications, but failed to. It is possible she thought his worsening condition was because he ran out of his medications, but if so, she needed to address this, by stating it in the medical record, making sure it did not happen again, and seeing the patient in a few days to assure that the problem was resolved. She did none of these things. [Category 4 (NP) error]

3/9 Dr. Arnold saw the patient in clinic. (He documents that this visit is in response to a referral from an RN for shortness of breath, but the note also says this is a CCC visit. So it is not clear what the nature of this visit was.) The patient's heart was racing (pulse 127). Dr. Arnold did not measure the patient's blood oxygen level. The doctor found that his circulation was sluggish (indicated by slow capillary refill). Dr. Arnold noted that the patient had a history of internal bleeding and that he thought the patient may have failed to collect stool samples for blood testing, because he was too weak to do so. Dr. Arnold's conclusion was that the patient's condition was "unstable." He ordered the patient sent to the ER by state van.

Dr. Arnold conducted no further physical examination, other than vital signs and pressing on the patient's skin (which showed the slow capillary refill). Given this paucity of information, his knowledge that the patient had a history of internal bleeding, and his conclusion that the patient was unstable, sending the patient to the ER by van rather than ambulance was dangerous. [Category 4 (MD) error]

Summary of Problems

Category 4 (NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of key errors.

Patient 15
Housing Unit 6C

Medical Record Review

Medical History: Asthma
21 years old

6/27 The patient was seen by an NP acutely for nausea and vomiting which had started that morning, along with diarrhea. The NP described him as "Moaning continuously. Lying in a fetal position…vomited green emesis [vomited material] on floor while lying on table." His vital signs were stable. He received an injection of a medication to reduce vomiting. He was sent to the ER by state van.

Though it may not have been, strictly speaking, dangerous, given his symptoms (and no documentation that they had resolved) it is hard to imagine how transport of the patient sitting upright in a van made sense.

7/15 The patient was involved in an altercation. He was evaluated by an LPN as part of a "Pre Seg" assessment. The LPN did not ask the patient any symptom or history questions. She obtained vital signs. The patient's pulse was 110 (elevated) and his heart rhythm was irregular (abnormal, a new development for him). He was then placed in an isolation cell.

The LPN evaluated the patient following an altercation prior to placement in an isolation cell. According to EMCF Healthcare Policy E-09 Segregated Inmates, "Prior to an inmate being placed in segregation, a qualified healthcare professional reviews the inmate's health

record to determine whether existing medical, dental or mental health needs contraindicate the placement in Segregation or require accommodation." This is an important patient safety practice because, due to the stress and physical isolation, failure to recognize these health needs can result in harm to the patient. The LPN's evaluation of the patient thus constituted an "assessment" – a professional judgment, based on all the facts collected, of what the patient's diagnosis is – and what the care plan should be. Conducting assessments is beyond the legal and safe scope of practice of an LPN; as discussed in greater detail in Section 4 of this report, an assessment of a patient's health needs is a complex task for which LPNs do not have sufficient training or licensure. Failing to identify an unmet health need prior to placement in an isolation cell, or failing to identify a condition which might destabilize during isolation could result in harm or death. [Category 1 (Urgent Care) error; Category 4 (LPN) error]

Even if the nurse were operating within her scope of practice, the care was inadequate. First, the nurse failed to elicit a history or any symptoms. Second, the nurse ignored 2 abnormal findings on her exam: an elevated and irregular heartbeat. This might have indicated that there was damage to the heart, perhaps due to blunt force trauma, which, if untreated, could have caused severe harm or death. The patient required further evaluation, and, most importantly, medical monitoring. None was provided. In fact, the patient was placed in an isolation cell. [Category 4 (RN) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 4 (RN & LPN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

Following an altercation, the patient received an inadequate screening from an LPN prior to placement in an isolation cell. The LPN failed to fully determine what internal injuries he might have suffered, and allowed him to be placed in isolation without further evaluation by a competent clinician. She did this despite a fast and irregular heartbeat, which might have been a sign of heart damage and which, without further care, might have resulted in deterioration or death. By practice, EMCF allows LPNs to conduct these screenings independently despite the fact that LPNs, based on their training and licensure, do not have the competency to perform them.

Patient 16
Housing Unit 1C

Medical Record Review

Medical History: High cholesterol, stroke, coronary artery disease, hepatitis C
63 years old

6/27 The patient submitted an SCR for loss of feeling and strength on the left side of his body.

This is an emergency, however, he was not seen until 7/2. [Category 2 (Non-Urgent Care) error]

7/2 The patient was seen by a nurse. She found decreased sensation and strength on his left side. She diagnosed the patient with "Strain; sprain, minor trauma" and referred him to a practitioner.

The RN referred the patient to the NP on an urgent basis, which at EMCF means within a week. This was a serious problem which required a much quicker referral, if not immediate. The nursing diagnosis was thoughtless. [Category 4 (RN) error]

Dr. Arnold signed off on the nurse's note, which should have prompted him to change the nurse's plan to an immediate visit. Instead he took no action. [Category 4 (MD) error]

7/5 An NP saw the patient in follow-up. She noted the absence of a facial droop, said the right hand grip was stronger than the left, but that "patient appears to purposefully not squeeze provider's hand with left hand and shrug left shoulder against resistance." She ordered an EKG and blood test for heart damage (troponin) and ordered a follow-up visit, but the time interval was not noted.

I don't know how the NP was able to determine that the patient was purposefully not squeezing her hand, but even if this was suspected, there were other physical examinations the NP could have done to further elucidate his condition, such as checking other muscle groups and checking deep tendon reflexes. In addition, the NP's ordering of the EKG and blood test reflected her concern that the patient's symptoms might be related to a heart problem. In that case, these tests needed to be done quickly. Instead, the EKG was not done until the next day, and the blood test was just not done. [Category 4 (NP) error; Category Other (Orders) error]

7/6 At 2:19 p.m., the patient was seen for an urgent visit by an NP for chest pain, shortness of breath, and lightheadedness. He reported having had a heart attack in 2016. His heart rate was dangerously low (47). The NP noted that the blood test from the night before could not be done for a technical reason. She ordered the patient sent to the ER by state van.

Given the patient's symptoms and slow heart rate, sending him by state van rather than ambulance was dangerous. [Category 4 (NP) error]

The patient returned from the ER. The ER report is missing *[Category 9 (Medical Record) error]*, but there are ER patient discharge instructions suggesting the patient went home the same day. He told nurses on his return that he had pneumonia and was to see a cardiologist. The ER physician recommended the following medications: nitroglycerin, isosorbide (a heart medication), Levaquin (an antibiotic), and metoprolol (a heart/blood pressure medication).

EMCF medical staff failed to start the Levaquin or metoprolol until 7/10, and then did not administer either medication because the patient "refused," yet there is no refusal form and, given the patient's history, it is not likely the patient would have refused. For the isosorbide, it appears to have been given on 7/8, but then on 7/9, it was not given because it was "out of stock," which is unlikely because EMCF ordered a 30-day supply on 7/6 and so could not have run out of it 3 days later. [Category 6 (Medication) error]

Staff also failed to arrange any follow-up post-ER visit. This was particularly important given the fact that, the ER physician was concerned that the patient had an infection and possibly a

heart condition. (In the absence of an ER report in the medical record, I am able to infer this from the ER physician's medication and consultation recommendations.)

8/16 The patient submitted an SCR for having bad dizzy spells to the point of blacking out.

He was scheduled to be seen by an RN on 8/22. Given the patient's symptoms, this is far too long a delay. [Category 2 (Non-Urgent Care) error] Further, even this delayed visit did not take place: it was cancelled for custody reasons. It finally took place on 8/23. [Category 2 (Non-Urgent Care) error] However, as noted below, the patient's vital signs were critically low at this visit, but ignored by the nurse.

8/21 The patient had a scheduled CCC visit with Dr. Arnold. The patient reported shortness of breath on exertion and on lying flat, and some dizziness when standing or walking. Dr. Arnold wrote that "He had a heart attack in July 2018." His blood pressure was low (98/62, down from 140/97 on 7/6 and 105/68 on 8/16). Dr. Arnold hypothesized that the patient's symptoms and low blood pressure were the result of 1 of his medications (Coreg®), so he ordered the medication dose halved and ordered follow-up in 6 weeks.

There is no record of the patient having had a heart attack in July. There is, as noted above, no ER note, but it is inconceivable that the patient had a heart attack and was released the same day from the ER on 7/6. And if Dr. Arnold believed the patient had had a heart attack on 7/6, he should have arranged much sooner follow-up in the clinic post-heart attack, not 1.5 months later. [Category 4 (MD) error]

While Dr. Arnold's hypothesis was that the patient's serious findings were all the result of his medication, he had an obligation to assure that within a short period of time (a short few days, if not daily), halving of the suspect medication resulted in resolution of the abnormalities. Scheduling a follow-up visit in 6 weeks was dangerous. [Category 4 (MD) error]

8/23 An RN addressed the SCR of 8/16, regarding the dizzy spells. Other than checking the patient's vital signs, she did no further evaluation, writing, "Seen by MD for current problem." The patient's blood pressure was lower than it had been 2 days earlier, and was by that point dangerously low (82/60, pulse 55 (also very low)).

Even though Dr. Arnold had indeed already addressed the problem, the current vital signs constituted an emergency and should have resulted in immediate contact of a practitioner or evacuation to the ER. The nurse did neither. [Category 4 (RN) error]

Dr. Arnold signed off on this visit on 8/30. When he saw the dangerously low blood pressure and low pulse, he should have arranged to have the patient evaluated immediately. Instead he did nothing. [Category 4 (MD) error]

9/21 The patient was seen by an NP for chest pain and pain on the left side of his neck radiating to his left chest and down his left leg. He reported a history of a heart attack and stent insertion in 2016. He denied chest pain or shortness of breath at present. An EKG showed an abnormally slow heartbeat and possible posterior myocardial infarction (heart attack). The NP sent the patient to the ER in a state van. He was admitted and evaluated for a heart attack. None was found, so he was evaluated for a stroke. He was discharged on 8/24.

Given his history and his current vital signs at this visit (90/60, pulse 56), I believe sending him in a van may have been ill-advised, however, this is something about which I believe reasonable clinicians might disagree.

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 4 (RN, NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category Other. Continued failure to carry out orders other than providing medication.

When this patient developed symptoms evocative of a stroke several sequential errors were made, including: delayed access to see a nurse; the nurse failed to appreciate the seriousness and urgency of the condition; when reviewing the nurse's note, Dr. Arnold also failed to appreciate the seriousness and urgency of the condition; the NP to whom the nurse referred the patient considered that the patient might have a serious urgent problem but did not take any urgent steps to address his needs; and the nurses charged with executing the NP's orders for a blood test and EKG (both tests to diagnose a possible heart attack) failed to complete the first and delayed the second until the following day. By that time the patient developed chest pain, shortness of breath, lightheadedness and a dangerously slow heartbeat, now requiring evacuation to the ER, where he was sent by state van instead of ambulance. A similar series of sequential errors was made a month later when the patient developed another serious problem (near loss-of-consciousness), including: a 6-day delay in scheduling him to be seen; canceling that appointment due to custody transportation failure; mismanagement of his symptoms when seen by Dr. Arnold; ignoring of critically low vital signs by a nurse on the day after Dr. Arnold's evaluation; and ignoring of this nurse's error by Dr. Arnold. At the time of each and every one of these errors, the patient had symptoms or signs of a serious health condition that could deteriorate or cause death at any moment, and yet each successive actor failed to do what was required of them to remove the patient from harm's way.

Patient 17
Housing Unit 5A

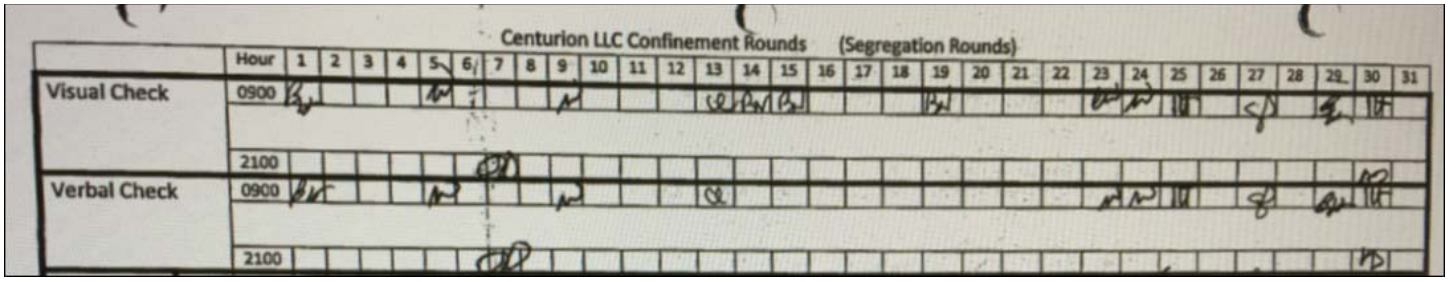
Interview

The patient stated he has hypertension and asthma and that his last visits for these were the day of my interview, the previous week, and 6 months earlier. For the September CCC for which he is marked as a "No Show," no one came to get him. Medications are delivered in envelopes left under the door. Evening medications are delivered at 3:00 a.m. when he is asleep. He has to give SCRs to an officer; and officers don't want to hand out blank SCRs. There are no welfare checks by health care staff in the Isolation Unit. The alarm buttons in the cells don't work. And there are still frequent fires in the Isolation Unit.

Medical Record Review

Medical History: Asthma, GERD, hypertension
30 years old

The medical record supports the patient's claim that there is a failure to conduct Isolation Unit rounds to check on patient welfare, as shown on the following figure taken from the record for April. On 16 days, he was not checked at all, and on 3 days, he was checked partially (visually, but not verbally), so he received an adequate check on only 11 of 30 days. [Category 7 (Welfare Check) error]



6/23 The patient presented to the medical unit with a slow heartbeat, an extremely low oxygen level (77%, normal >=95%), and high blood pressure. Dr. Arnold ordered nurses to observe, and if his heart rate did not increase, to send him to the ER. The heart rate did not go up, and he became more symptomatic, so he was sent out to the ER by ambulance.

Given his history, especially his very low oxygen level, I believe waiting for a change in his heart rate was ill-advised, as such an increase would not have changed the calculus of his need to go to the ER. However, I will consider this something about which reasonable clinicians might disagree.

The report from the ER is missing from the patient's medical record. [Category 9 (Medical Record) error]

Summary of Problems

Category 7. Failure to Perform Welfare Checks
Category 9. Continued Failure to Maintain an Adequate Medical Record

See the notes in italics for a summary of key errors.

Patient 18
Housing Unit 1

Interview

He uses his rescue inhaler 6 to 8 times per week, but is not prescribed a core (preventive) medication for his asthma. He attends CCC every 3 months, with the last time being 2 weeks prior to our interview, and the time before that being 3 months earlier. For the CCC in September (for which my review of the CCC log shows that he was marked as a "No Show"), he was never called to the clinic. He has to submit SCRs either by giving them to an officer or another resident.

Medical Record Review

Medical History: Asthma, hypertension
45 years old

Hypertension is missing from the patient's problem list. [Category 9 (Medical Record) error]

7/16/2017 The patient had a CCC, at which time the next CCC was ordered for 3 months hence.

The 3-month CCC then ordered did not actually take place until 12/29/2017, 5 months later. [Category 3 (Chronic Care) error]

3/23 The patient had a CCC visit with Dr. Arnold. His blood pressure was 150/93 (mildly elevated). Dr. Arnold wrote that this is an isolated high reading (that is, the patient's blood pressure measures are otherwise normal), so he will discontinue the patient's blood pressure medication (HCTZ).

This plan is not logical or clinically sound. First, the assertion that this was an isolated high reading is incorrect. While there were prior normal readings, periodically there were not. Second, and more importantly, the many previous normal reading are probably normal BECAUSE the patient was on blood pressure medication. Further, while a trial period off medications is not necessarily bad, if a physician tries that, he or she must monitor the patient's blood pressure to be sure that the discontinuation of medications was justified and safe. However, Dr. Arnold failed to order monitoring. He simply scheduled the patient to return in 3 months. [Category 4 (MD) error]

6/27 The patient had his next CCC visit with Dr. Arnold.

9/11 The patient had a visit with an NP because he wanted to know why his blood pressure medication was stopped. His blood pressure was again elevated (146/100). The NP ordered his blood pressure checked daily for 1 week.

Nurses ignored this order; his blood pressure was not checked. [Category Other (Orders) error]

9/19 The patient had his next CCC with an NP.

There is no evidence in the patient's medical record of a missed CCC in September. Thus, the information in the patient's medical record and the CCC Log are contradictory. [Category 9 (Medical Record) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category Other. Continued failure to carry out orders other than providing medication.

This patient's CCC for hypertension, ordered to take place around October 2017, was inexplicably delayed 5 months. When it did take place, the patient's blood pressure was elevated. Thus, the patient may have been subject to high blood pressure for an extended period of time, which is known to cause damage to the brain, heart, and kidneys. When he was finally seen in CCC, Dr. Arnold stopped his blood pressure medications, but failed to monitor whether his blood pressure would suffer as a result. Several months later, when it happened to be checked because the patient had a concern, an NP found that it was elevated, but nurses ignored the NP's order to recheck the blood pressure daily for the next week, risking harm to the patient if it had continued to rise.

Patient 19
Housing Unit 2C

Interview

His last CCC was 5 months ago. He confirmed the documentation on the September CCC Log that he refused the September visit. He refused because the "care sucks." No one discussed his refusal with him, and he didn't remember if he was asked to sign a refusal form. His blood sugars are always >400 (dangerously elevated). He doesn't always get his evening insulin. He sometimes refuses it, because staff fail to provide him with an evening snack[11].

Medical Record Review

Medical History: Hypertension, diabetes (on insulin)
37 years old

Dec. 2017 Around this date, the patient's blood sugar started to be very high: most 450-547, daily (they had been in the 300s consistently before, which was already elevated).

Blood sugar readings for most patients with diabetes should be between 70 and 180, depending on when they are measured. When blood sugar readings are above this level, the speed with which they should be handled is proportional to the elevation. Elevations in the 200-300 range can usually be managed by closer monitoring or adjustments to diet or medications in the following day or days. Elevations in the 400-500 range required more immediate evaluation, often resulting in an extra dose of insulin at that time. Blood sugars above 500 should be considered clinical urgencies. All elevated blood sugars, if present for extended periods of time, cause permanent damage to major organs. Despite this risk and the patient's markedly elevated blood sugars for an extended period of time, no practitioner took any action until 2/15, when Dr. Arnold sent the patient to the ER for a high blood sugar reading. See below. For all of January, the patient only received 11 of 62 doses of insulin, and for most of these missed doses, the nurse did not even bother to see the patient, no less document refused or No Show. There was a similar pattern of insulin administration in the first half of February. So it was no surprise that the patient's diabetes was dangerously out of control. Such extremely high blood sugars required Dr. Arnold to assess the patient's

[11] Many patients who receive insulin in the evening are also supposed to eat a snack around bedtime to prevent the insulin from causing their blood sugars to go too low ("hypoglycemia") during the night, a situation which can be very dangerous.

diabetes condition and fix the underlying problem, i.e. the patient needed to get his insulin administered by nurses, as ordered. Instead, and after his return from the ER visit, the same pattern of missed insulin was allowed to continue. [Category 4 (MD) error; Category 6 (Medication) error]

2/15 The patient was sent to the ER because his blood sugars were extremely high (either 500 or so high they were unmeasurable on the prison clinic's instruments). The ER physician ordered adding a different kind of insulin (Levemir).

Nurses never administered it. [Category 6 (Medication) error]

2/21 Dr. Arnold discontinued the order for Levemir insulin. He had a reasonable rationale for so doing, and came up with a different plan, including a return visit in 2 weeks.

Unfortunately, the 2-week follow-up never happened. [Category 3 (Chronic Care) error] (There was an appointment with an NP, but for a different problem.) Dr. Arnold did not see him again until 6/5.

6/5 The patient had a CCC appointment with Dr. Arnold. His HbA1c, a measure of diabetes control, was >15% (extremely high, normal <5.7%). Dr. Arnold ordered a follow-up in 1 month.

Dr. Arnold's explanation of this in the patient's medical records was that perhaps the patient's insulin was ineffective because of how the patient was injecting it, and that metformin was not a good choice. While under other circumstances this might be a plausible theory, Dr. Arnold missed the correct explanation that was patently obvious: for the preceding month of May, the patient had only received 29 of his 62 doses of insulin. [Category 4 (MD) error]

7/1 The patient had his diabetes CCC visit follow-up with an NP.

Despite the fact that the patient's blood sugar control was still very poor, and the NP could have easily appreciated – but did not – that the patient was not receiving much of his insulin, the NP made no changes to his care plan. She ordered him to return in another month. [Category 4 (NP) error]

The follow-up visit never took place. On 8/8 the patient signed a refusal form. For that refusal, any clinical counseling he received was from a correctional officer who, for obvious reasons, is neither qualified or licensed to provide such counseling. On 8/13, he signed another refusal form. For that refusal, any clinical counseling he received was from an LPN, which would have been beyond the scope of the LPN's license. [Category 3 (Chronic Care) error; Category 4 (LPN) error]

Sept. There is no record of a CCC appointment in September nor of a refusal or miss of it.

There is no evidence in the patient's medical record of a missed CCC in September. Thus the information in the patient's medical record and the CCC Log are contradictory. [Category 9 (Medical Record) error]

July MAR

The patient received only 10 of 62 scheduled doses of insulin. [Category 6 (Medication) error]

Dr. Arnold signed off on this MAR on 7/31. [Category 4 (MD) error]

Aug. MAR

The patient received only 3 of 30 scheduled doses of insulin. [Category 6 (Medication) error]

Dr. Arnold signed off on this MAR on 8/31. [Category 4 (MD) error]

Sept. MAR

The MAR is missing. [Category 9 (Medical Record) error]

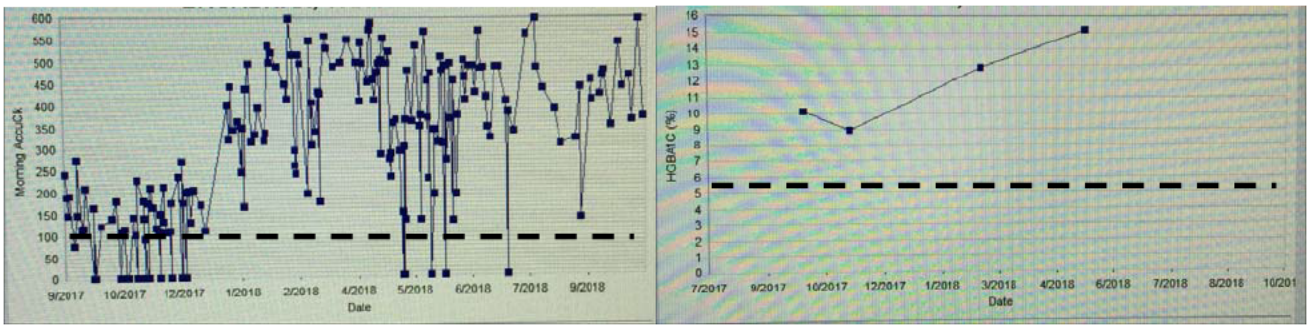
10/2 The patient had a CCC visit with an NP. The NP noted that his diabetes control was worse. She ordered another diabetes blood test and ordered the patient to return in 1 month.

The NP, as all before her, continued to ignore the pattern of the patient receiving very little of his insulin from the nurses, yet took no action to address this. Under these conditions, continued blood testing and reappointing the patient back to the clinic in 1 month would predictably ensure that the patient's dangerously high blood sugars continued. [Category 4 (NP) error]

Blood sugars and Diabetes control

Review of the patient's test results confirm the patient's allegation that almost all his blood sugar results (almost all of which are in the morning) are >350, and most are >400 (normal fasting blood sugar <100).

The graphs below show the patient's blood sugar levels (left graph) and HbA1c levels (right graph) from Fall of 2017 to the present. The dotted lines show the upper limit of normal (for the graph to the left, the upper limit of normal is only shown for fasting blood sugars).



This data shows that the patient's diabetes (as measured by 2 different blood tests) was in much better control until Dec of 2017 and then skyrocketed. This occurred during Dr. Arnold's tenure and with his knowledge, yet Dr. Arnold failed to address and fix the

underlying cause (not getting insulin). Other than the CCC visit in June, the patient has had his CCC visits with NPs, not Dr. Arnold; a patient with a chronic disease this out of control should be followed by the physician, not the NP. Even as recently my visit, nothing had changed. The patient's MAR on the day of my visit showed that in the 10 days of October prior to my visit, the patient received zero doses of prescribed insulin (as indicated by a "1" or "2" for each of the scheduled 9:00 a.m. doses, and blank cells for each of the 9:00 p.m. doses). [Category 4 (MD) error; Category 6 (Medication) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (LPN, NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category Other. Continued failure to carry out orders other than providing medication.

This patient suffers from diabetes, a serious disease which can cause death in the short-term from the acute effects of very high or low blood sugar levels (including delirium, unconsciousness, dehydration, and death), and can cause damage to nerves, blood vessels, heart, brain, and kidneys over the long term from the effects of even mild to moderate elevations of blood sugar levels. Much of this can be prevented from close monitoring and competent management by the medical team, including practitioners and nurses. However, sequential and continuing errors by multiple health care providers at EMCF, including LPNs, NPs, and Dr. Arnold, have resulted in sustained elevated blood sugars for almost all of 2018 – most of which are in the range requiring urgent attention – resulting in continuing risk to this patient of not only long-term organ damage, but also short-term harm from acute high blood sugars.

Patient 20
Housing Unit 2

Interview

The patient was listed on the Sick Call Log as having refused appointments on 5/11 and 9/1; the patient stated that he was not sure about the former but does not believe he refused the latter. The patient admitted to sometimes refusing to see Dr. Arnold because he doesn't trust him, but denied that he refuses to be seen at all. Part of his reason for not trusting Dr. Arnold is that the physician discontinued his pain medication (gabapentin; Neurontin®) and switched him to another medication (tricyclic), which he had been on in the past and which hadn't worked. Dr. Arnold made this change without actually seeing him. The patient stated that refusal forms are brought to him to sign by officers, not medical staff (he refuses to sign). He also gets recurrent lice infections.

Medical Record Review

Medical History: Hepatitis C, GERD, back pain
56 years old

1/26 An NP increased the patient's dose of pain medication (gabapentin) from 300 mg. twice to thrice daily due to pain.

3/2 The patient had a visit with an RN for continued back pain, but left during the visit.

6/10 The patient had a visit with an NP who ordered his gabapentin continued at the same dose.

6/11 The NP submitted a special form (non-formulary request) that was required to continue the gabapentin. She indicated on the form the need for the medication and that the logical alternative (a tricyclic, nortriptyline) had been tried in the past for 6 months without success. Dr. Arnold responded to this request by indicating that "patient was weaned off gabapentin and can be treated with alternative medications"

First, Dr. Arnold's assertion regarding the gabapentin was not factual. According to the MAR, the gabapentin was not weaned as of 6/11. It was abruptly stopped on 6/22. Second, his alternative medication plan contradicts the notation by the NP that a reasonable alternative medication had already been tried without success. Finally, Dr. Arnold did not see the patient, nor communicate directly with staff to suggest other alternative medications. [Category 4 (MD) error]

6/18 The same NP wrote an order for nortriptyline.

Following this change to a previously ineffective pain medication, the NP did not arrange any follow-up to evaluate the patient's pain until August 14. At that visit, she switched the patient back to the gabapentin. However, she ordered it at twice a day, not thrice a day, as it had been prior to discontinuation on 6/22; it was not clinically reasonable to think the patient's pain would be controlled at lower dose than before. [Category 4 (NP) error]

Summary of Problems

Category 4 (NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

This patient suffers from chronic pain which was being treated with a pain medication. In what appears to be an uniformed and capricious decision, Dr. Arnold ordered the medication stopped. In the absence of an alternative plan and failure by an NP to monitor the patient's pain level with no medication, the patient was unnecessarily subjected to pain for 2 months. And even then, when the medication was finally reinstated, the NP reinstated it at a lower dosage than had previously been required to control the patient's pain.

Patient 21
Housing Unit 3A

Interview

The patient was listed on the CCC list as having refused his visit in September. He stated that it is not true that he refused. He stated he is supposed to go to CCC every 3 months, but his visit last week was the first time in 3 to 5 months. He had been stable on his seizure medications for years, but Dr.

Arnold changed his medications 2 months ago without a visit, and he had an allergic reaction to the new medications. When he is given a refusal form to sign, it is always brought by an officer, not a health care staff member. The alarm buttons in the cells don't work. He submits SCRs by giving them to an officer. Nurses usually deliver evening (9:00 p.m.) medications between 7:00 p.m. and 11:00 p.m., but also as late as 1:00 a.m. However, he also said that the last time medications were this late was more than 1 month ago – it is less common than it used to be. The patient also stated that medications run out, though this hasn't happened to him personally for at least 2 months. Finally, a new seizure medication was ordered for him on 10/4 – as of the day of the interview (10/9) he had not yet gotten it.

Medical Record Review

Medical History: Seizures, high cholesterol
29 years old

The patient is mistaken about the scheduling interval for his CCC visits. At the visit in January, due to the stability of his conditions, the practitioner appropriately planned for the next visit to occur in 6 months, which it did.

1/14 The medical record contains a refusal form for a visit that day. The form indicates that the patient refused to sign the form. The only other signature on the page is that of an officer.

This refusal form corroborates the patient's allegation that refusals can be executed by non-health care professionals (officers). It can be inferred that this is not an informed refusal. [Category 3 (Chronic Care) error]

8/13 The patient had a CCC visit with Dr. Arnold. Due to poor control of his seizures, Dr. Arnold added a medication (Keppra®) for seizures and ordered the next visit for 1 month later (September).

There is no indication that there was a clinic appointment for him in September, nor that he missed it. The order for the patient to be seen in CCC in September was ignored. [Category 3 (Chronic Care) error]

The patient's claim that Dr. Arnold started a new medication to which he became allergic, without a visit is not accurate. Dr. Arnold started the new medication as of this visit. However, nurses failed to actually deliver the first dose to him until 6 days later (8/19). Thus it is possible that by then he no longer associated the new medication with his earlier visit. [Category 6 (Medication) error]

10/3 The patient had a CCC visit with Dr. Arnold. Due to an increase in seizures, Dr. Arnold ordered 1 of his medications (carbamazepine) increased from 300 mg AM and 200 mg PM to 300 mg AM and PM.

As of midday 10/10, when I inspected this patient's MAR, a week after the order had been written, nurses had still not been implemented it. [Category 6 (Medication) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

This patient's case contains 2 unrelated errors. First, an officer executed a patient refusal of CCC, which is dangerous because: (a) if the patient really refused, an officer does not have the medical training to explain the risks and alternatives required for an informed refusal, and (b) it cannot safely be assumed in a prison setting that, in the absence of a face-to-face encounter with a health care staff member, the patient actually was aware of, and voluntarily refused to be seen. In the absence of the CCC visit, the patient's health is placed at risk due to lack of monitoring and medication adjustment for his high cholesterol and seizures, both of which can cause serious harm if uncontrolled. Second, nurses failed to administer seizure medications as ordered, also subjecting the patient to the risk of seizures.

Patient 22
Housing Unit 3C

Interview

The patient stated that he did go to the CCC in September. (Based on my inspection of the CCC list, the patient was marked as having been a "No Show" for his visit in September.) However, upon arrival in the clinic at the scheduled time, he was told that Dr. Arnold was in a meeting, so after 1 to 2 hours he signed a refusal and left. His medications were discontinued 2 to 3 days prior to the interview, because he hasn't seen the doctor. The nurse delivers morning (9:00 a.m.) medications as late as noon and evening (9:00 p.m.) medications between 8:00 p.m. and 2:00 a.m. or 3:00 a.m., and that the last time it was this late was about a month prior to the interview. For submitting SCRs, the patient gives the SCR to an officer or can put it in the locked box himself, but only if he happens to be going to school that day. It takes a few days to be seen after submitting an SCR. Finally, the patient stated that officers ignore alarm buttons.

Medical Record Review

Medical History: GERD, hypertension, seizures
42 years old

7/1 The patient had a CCC visit for seizures. He was stable and appointed back for 3 months.

9/21 The patient had a CCC visit for seizures.

There is no evidence in the patient's medical record of a missed CCC in September, as recorded in the CCC Log. Thus, the information in the patient's medical record and the CCC Log are contradictory. [Category 9 (Medical Record) error]

10/3 The patient had a CCC visit for seizures. He refused. He did sign a form saying that he risked not getting his medications.

The October CCC visit (not the September one, as the patient recalled) appears to be the visit that the patient refused. Based on the patient's report, this visit did not take place due to the unavailability of the physician. [Category 3 (Chronic Care) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 9. Continued Failure to Maintain an Adequate Medical Record

See the notes in italics for a summary of key errors.

Patient 23
Housing Unit 4A

Interview

The patient was listed on the CCC list as having refused his visit in September. The patient stated that he didn't remember the September CCC visit. He complained of multiple lesions on his leg for which medical staff were not providing any care. Finally, he stated that evening (9:00 p.m.) medications are administered between 9:00 p.m. and 2:00 a.m. (the last time they were this late was about a month earlier).

Medical Record Review

Medical History: Abscess, seizure
28 years old

Nov. 2017 The patient had a CCC visit, was doing well, and was reappointed in 6 months.

4/8 At 8:00 p.m., the patient cut himself with a light bulb due to hearing voices. An RN notified an NP who gave a medication order and said the patient would be re-evaluated in the morning.

The patient received no evaluation of his cut either at this time, the next morning, or at all. [Category 1 (Urgent Care) error]

4/11-12 Review of the unit logs showed an emergency response the evening of 4/11 at 11:49 p.m. for chest pain.

The patient's medical record is devoid of ANY mention of this event. The next entry is 4/13, for a different issue. [Category 9 (Medical Record) error] I am unable to evaluate the quality of the urgent care delivered due to the absence of any record.

5/30 The patient was seen in CCC for seizures. The seizures were deemed to be in fair control (3 petit mal seizures) and he was ordered to return in 3 months.

6/6 The patient was seen by an RN for leg lesions and referred to an NP.

The NP visit, scheduled for 6/13, was cancelled due to custody.

6/15 The patient was finally seen for his leg lesions by an NP. The NP established a diagnosis of "sores" and prescribed antibiotics by cream and pill and for the patient to return as needed.

Nurses failed to administer 10 of 18 doses of the antibiotic. [Category 6 (Medication) error]

7/3 The patient was seen by an RN for the same lesions. The nurse wrote that the patient "did not take" his antibiotics and referred him to an NP.

7/5 At the scheduled NP visit, she reordered more oral antibiotic (for 10 days) and a different cream.

Nurses failed to administer <u>every</u> morning dose of the antibiotic and most of the evening doses. Ultimately, of 20 doses ordered, he received only 6. [Category 6 (Medication) error]

8/8 The patient was seen a third time by an RN for the same lesions. She referred him again urgently (within 1 week) to an NP.

Given the fact that the patient had not yet received more than a fraction of the antibiotic medication dosages ordered for him from the beginning, it is not surprising that the condition persisted. Moreover, the order for him to be seen within a week was ignored: he was not seen until 8/21, almost 2 weeks later. [Category 6 (Medication) error]

8/21 The patient was seen by an NP and diagnosed with scabies. The NP ordered medications and that all his bedding was to be washed or disposed of.

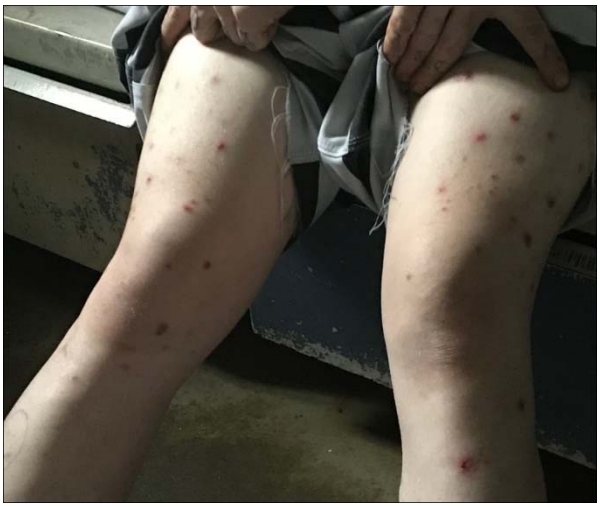
The NP's order for washing the materials should have included all clothing, not just the bedding. It did not. [Category 4 (NP) error]

The above point is moot, though, because custody staff ignored even the order to wash bedding. They simply wiped down his mattress with "sani wipes." [Category 6 (Medication) error]

9/16 The patient was seen by an RN for his continuing rash from scabies and complained of "itching all over." The nurse noted the diagnosis and documented that the order to clean bedding had been ignored. Other than washing his skin with an antiseptic soap, she provided no treatment for the scabies.

Given that the nurse knew the patient still suffered from scabies and that an important part of the treatment that had been ordered (incomplete as it was) had not been carried out by custody staff, the nurse had an obligation to both treat the itching symptomatically as well as assure that the order to clean his bedding was carried out. She did not do this (the antiseptic washing is useless in scabies). [Category 4 (RN) error]

It was to be expected, then, that when I interviewed the patient on 10/9, some 4 months after he presented with scabies, that he still suffered from it, as shown in the figure.



Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 4 (RN & NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record

Nurses ignored an NP's order for follow-up care for a cut, placing the patient at risk for an infection. In an unrelated incident, despite documentation in the custody Housing Unit Log of an emergency call for assistance from medical staff due to chest pain, nurses failed to document any assessment or treatment of this in the patient's medical record. Finally, unrelated to the previous 2 errors, the patient was subject to multiple errors by nurses, custody staff, and an NP, all regarding care for sores on his skin, including nurses' failure to administer medications as ordered, the NP's failure to order the proper treatment, custody's failure to execute the order to have the bedding cleaned, and a nurse's failure to insist on custody carrying out the order once she learned that it had been ignored. As of the day of my interview, the patient continues to suffer from the sores. While it is likely that these sores are due to a scabies infestation, an infection which is not lethal, the chronic itching can be quite debilitating. Further, failure to eradicate the infection swiftly and thoroughly in a congregate environment, puts others residents at risk of becoming infected.

Patient 24
Housing Unit 4A

Interview

The patient was listed on the CCC log as having been a "No Show" for his visit in September. The patient stated that he didn't remember being called for the September CCC visit, and that he had not been to CCC in 5 months. He also stated that Dr. Arnold discontinued his medication for seizures (gabapentin) despite the fact that he continues to have seizures. Dr. Arnold ordered a different medication, that the patient said was causing him side effects.

Medical Record Review

Medical History: Seizures, wound infection, hypertension
50 years old

8/9/2017 The patient was seen in CCC by an NP who documented that his seizure disorder was stable on gabapentin 300 mg twice daily.

11/3/2017 The patient was seen in CCC by an NP who again documented that his seizure disorder was stable on gabapentin 300 mg twice daily.

11/29/2017 The patient was seen in CCC by an NP, but this time Dr. Arnold was in the room. Dr. Arnold told the patient he would no longer receive gabapentin, and instead would be switched to a different medication (Keppra®).

It is not clinically rational or acceptable, without some explanation, for Dr. Arnold to have taken the patient off a medication when the staff had been documenting that the patient's seizures were under good control, and to just switch him to a different one. Further, the decision to do this was made several days prior to the patient's visit, because the gabapentin prescription had been allowed to expire on 11/26/2017 without the patient's consent (or even notification). So from 11/26/2017 to 11/29/2017, the patient was intentionally left without any medication, putting him at risk of a seizure. Lastly, the new medication was never ordered. Thus, the care delivered under Dr. Arnold's guidance was dangerous. Predictably, it would lead to worsening of his condition. [Category 4 (MD) error]

12/22/2017 The patient was seen by an RN for recurrence of seizures (3) since discontinuation of his seizure medication. She referred him to the NP.

1/5 The patient was seen in CCC by an NP. He reported having yet another seizure 2 days earlier, this time resulting in an injury to his ear which required antibiotics. The NP did not order any seizure medications. She scheduled him to return to clinic in 1 month.

There could not have been clearer clinical reason to restart the patient's seizure medication, given that it had been clearly demonstrated that failure to do so resulted in injury. Yet, the NP did not do so. [Category 4 (NP) error]

2/8 The patient was seen in CCC by an NP. He now reported monthly seizures. The NP restarted his gabapentin.

6/7 The patient was seen in CCC by an NP. The NP determined his seizures were under fair control and ordered him to be seen in CCC in 3 months.

As of my review on 10/11, some 4 months later, the patient had still not been seen back in CCC for his 3-month visit. [Category 3 (Chronic Care) error]

Sept. *I was unable to find a CCC scheduled for September.*

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

This patient has a seizure disorder that was well controlled on medication (gabapentin). Dr. Arnold decided in November 2017 – for no reason – to discontinue this medication. As a result, the patient started having seizures again. Despite sharing this with NPs during subsequent visits, and having a seizure resulting in an injury to his ear that was serious enough to require antibiotics, practitioners continued to ignore his serious medical need. Finally, 3 months after discontinuing his medication, an NP finally restarted it and his seizures came back under control. As this patient's own experience demonstrates, the poor care this patient was subjected to caused him harm from injury, and placed him at risk of other complications from seizures, such as more serious injuries, infections, and even death.

Patient 25
Housing Unit 6

Interview

The patient stated that he has been at EMCF since August 2017, but has still not received a rescue inhaler for his asthma. He was seen in CCC about 3 to 4 months ago, at which time Dr. Arnold said he would refill his inhaler prescription, but as of the day of the interview, that had not yet happened. Finally, the patient stated that nurses usually administer evening (9:00 p.m.) medications between 7:00 p.m. and 10:30 p.m., but also as late as 11:00 p.m.

Medical Record Review

Medical History: Hepatitis, asthma, substance abuse
31 years old

12/5/2017 The patient's prescription for his regular inhaler (ciclisonide, Alvesco®) expired on 12/5/2017 and was not refilled after that.

Thus, despite the patient's established need for a basic medication to control a chronic disease (asthma), EMCF simply stopped providing it. [Category 3 (Chronic Care) error]

1/12 The patient submitted an SCR to get his inhalers.

The SCR was not reviewed until 1/24, which is too long for such a request. [Category 2 (Non-Urgent Care) error]

1/25 There is a refusal form for CCC. It says the patient refused to sign the form.

It is inconceivable to me that the patient actually was present and refused, given that a few days earlier, he had asked for his CCC medications. He had an appointment for clinic on 1/23 that was cancelled due to custody transport. It is more conceivable that custody was the real reason for the patient's "No Show" on 1/25.

2/6 His CCC for asthma was cancelled due to custody.

2/13 His CCC for asthma was cancelled due to custody.

EMCF staff made no further attempts after this to have the patient cared for in CCC until 3 months later. [Category 3 (Chronic Care) error]

2/15 The prescription for his rescue inhaler (levalbuterol, Xopenex®) expired.

It was not refilled at this point, leaving him with no asthma medications at all. [Category 3 (Chronic Care) error]

5/3 The patient had a CCC for his asthma with Dr. Arnold, who renewed both asthma medications and ordered him to return to CCC in 3 months.

As of 10/11, 5 months later, the patient had not yet had his 3-month return visit. [Category 3 (Chronic Care) error]

Despite being renewed in May, nurses failed to dispense either medication to the patient during May. In June, nurses finally gave him 1 of the medications (Alvesco) to keep on his person. As of 10/11, I could find no evidence that nurses ever issued the second medication (Xopenex). [Category 6 (Medication) error]

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 3. Continued Lack or Delay of Access to Chronic Care
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

Through the failings of custody staff and nurses, this patient suffered delays in monitoring and maintenance of his asthma in CCC and, for many months, lack of access to one or both of his essential medications. Asthma is a serious disease which, when poorly monitored or treated, can result in severe shortness of breath, pneumonia, and death. The poor quality of care provided to this patient placed him at risk of these harms.

Patient 26
Housing Unit 6

Interview

The patient goes to CCC for stomach problems every 4 to 6 months, with the last visit 10 days before the interview, and the visit before that 1 year earlier. When the patient saw Dr. Arnold the last time, the doctor auscultated (with a stethoscope) his heart and lungs, but the patient was absolutely sure the doctor did not palpate (press on) his abdomen. The patient stated that nurses do not fail to administer any of his doses of medication, and that it takes about 2 weeks to be seen after submitting an SCR.

Medical Record Review

Medical History: Dyspepsia
42 years old

8/14 The patient was scheduled for CCC. There is a refusal form signed by the patient devoid of any explanation of risks.

8/23 CCC was cancelled due to custody.

9/6 CCC was cancelled due to custody.

9/17 CCC was cancelled due to custody.

10/2 The patient finally had his CCC with Dr. Arnold. According to the documented examination, Dr. Arnold did palpate the patient's abdomen.

I was unable to verify the patient's claim of no abdominal examination.

In addition, even if one believes the patient effected an informed refusal of his CCC on 8/14, it took almost 1.5 more months for him to be seen, due to custody. [Category 3 (Chronic Care) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care

See the notes in italics for a summary of key errors.

Patient 27
Housing Unit 5B

Interview

The patient has CCC visits every 3 months, with the last visit being the week prior to the interview. The patient stated that there was a fire on his living unit a week earlier and there had been 2 or 3 fires the previous month. The fires make breathing difficult. In addition, the patient stated that nurses sometimes leave his evening medications in an envelope under his door; he finds them when he wakes up. However, there have been not missed doses. He stated that medication administration is problematic when he is moved from one unit to another: it takes a while for the medications to catch up with him. The patient is allowed to keep his rescue inhaler in his cell, but nurses do not conduct welfare checks when he is in the Isolation Unit. Finally, the patient stated that his wound care was missed several times last month.

Medical Record Review

Medical History: Hepatitis C, back pain, emphysema, hypertension
57 years old

I found no evidence of a wound problem or relevant care.

5/17 The patient was seen in CCC by Dr. Arnold who ordered him to return in 3 months.

The 3-month visit did not occur until 10/2, almost 5 months later. [Category 3 (Chronic Care) error]

10/2 The patient was seen in CCC by Dr. Arnold.

The patient's problem list indicates that he suffers from emphysema, but Dr. Arnold's note indicates he suffers from asthma. These 2 diseases are related, but they are different. Thus, either the problem list or Dr. Arnold is wrong. If it is the former, Dr. Arnold had a responsibility to correct the problem list, which he did not. [Category 4 (MD) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of key errors.

Patient 28
Housing Unit 5D

Interview

The patient stated that, on 7/22, he suffered loss of consciousness due to low blood sugar. A nurse came to give him medications and noticed him not doing well, so checked his blood sugar which was 30 (extremely low), and sent him to the ER. On 10/4, he got his insulin at 4:00 a.m., but didn't get breakfast until 7:00 a.m., so his blood sugar dropped again, this time to 20. He was seen the next day by an NP. The patient stated that he has low blood sugar periodically. It usually takes 10 to 15 minutes to get an officer's attention when he needs it. He stated that nurses conduct welfare checks on him 2 to 3 times per week. Finally, he stated that he only remembers experiencing 1 fire recently.

Medical Record Review

10/13 At 6:18 a.m., the patient suffered an emergency ("Man Down"). An LPN responded and administered oral glucose. She asked the next shift to check on the patient. Later that day, his blood sugar rose to 562, which is extremely high and dangerous.

This was a highly problematic and dangerous encounter. First, the patient was managed independently by an LPN without oversight by a properly licensed medical professional, in violation of the LPN's license and safe practice. Second, the LPN failed to conduct any actual evaluation of the patient. She noted that the patient refused vital signs, however (a) assuming the patient had a low blood sugar, he probably did not have the capacity to effect an informed refusal, and (b) there are other signs and symptoms that can be elicited other than vital signs.

Third, there is no record in the progress notes of a blood sugar measurement, so it is impossible to know if the patient had low blood sugar (and therefore whether administration of glucose was what was needed). Fourth, even assuming the patient had suffered from low blood sugar, he required close monitoring over the next minutes to hours to assure that the low blood sugar would not return. Low blood sugar, if untreated, is potentially fatal. Fifth, the patient's next blood sugar reading was 562; the LPN's "treatment" may have contributed to this dangerous state. [Category 1 (Urgent Care) error; Category 4 (LPN) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 4 (LPN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of key errors.

Patient 29
Housing Unit 5A

Interview

The patient was listed on the CCC list as having refused his visit in September. He stated that no one ever came to get him for this visit. The patient also stated that nurses usually administer evening (9:00 p.m.) medications between 10:00 p.m. and 11:00 p.m., but it can be as late as 1:00 a.m. to 2:00 a.m. (which last happened the previous week). He also stated that nurses slide an envelope with pills under his door, and that he didn't recall any missed medications. Finally, he stated that nurses do not conduct welfare checks in the Isolation Unit.

Patient 30
Housing Unit 3

Medical Record Review

Medical History: Substance abuse history
22 years old

8/10 The patient was discharged from sheltered housing 4 days earlier. He had no interactions with the health care system until he was found unconscious with vomited material near him on 8/10. He was immediately sent to the ER by ambulance where he was admitted to the ICU. An overdose was suspected.

The hospitalization does not appear to have been avoidable.

Patient 31
Housing Unit 4D

Medical Record Review

Medical History: Chronic renal insufficiency, GERD, high cholesterol, hypertension, diabetes
61 years old

6/14 The patient experienced sudden weakness. He presented to an RN who referred him immediately to an NP. After discussion with Dr. Arnold, the NP sent him to the ER by ambulance. He was admitted with a stroke.

While it is good that staff sent the patient to the ER, the NP's note fails to address the exact time of onset of symptoms, despite having discussed the case with Dr. Arnold. This is an essential part of the evaluation of someone with these symptoms because the choice of treatment options in the ER are critically dependent on the exact time the symptoms began. The ER transfer sheet is also missing from the medical record, so I cannot tell if that information might have been recorded there, but apparently staff in the ER knew the exact time of onset of symptoms (5:00 p.m.), so the information must have been collected and transmitted somehow, albeit not recorded in the medical record. [Category 9 (Medical Record) error]

The electronic health record ("EHR") for this patient is in horrible shape with regard to outside documents. Medical records from the hospital were scanned and posted to the record twice, once as individual pages (requiring the user to have to open a new file for each page in a multiple page report from the hospital), and once with all the pages contained within a single file, but posted with pages randomly upright or upside down, making it time consuming for nurses and practitioners to read important information. With potentially dozens of patients to see each day, such inconsistent record management takes valuable time away from patient care and may lead to mistakes in care. [Category 9 (Medical Record) error]

The hospitalization does not appear to have been avoidable, and the patient's blood pressure leading up to this event was reasonably well controlled.

Summary of Problems

Category 9. Continued Failure to Maintain an Adequate Medical Record

This patient's care suffered from poor medical record keeping, both with regard to critical clinical information which an NP failed to record as well as with regard to sloppy scanning and posting of important outside records, which will waste the valuable time of busy clinicians who must read them.

Patient 32
Housing Unit 2A

Interview

My review of the Sick Call Log shows that this patient refused to be seen on 5/11 for a dental SCR. When I questioned the patient about this, he stated that this was not true and that he was not seen for this request until July. He saw the dentist in July, who gave him the choice of an extraction or a root

canal. He chose to have the latter procedure done and received ibuprofen in the interim, but he is still waiting for the root canal (he is feeling better now).

Patient 33
Housing Unit 4B

Interview

My review of the Sick Call Log shows that the patient was rescheduled for a 7/30 visit for an SCR related to pressure on his side. When I questioned the patient about this, he stated that he didn't know why the visit was rescheduled, but that he was never seen for it. The patient also stated that he submitted an SCR on Friday (10/5), and was seen on Monday (10/8) by an RN who gave him Tylenol®. He has put in other SCRs without response. The patient stated that nurses usually administer evening (9:00 p.m.) medications between 7:00 p.m. and 10:00 p.m., but sometimes as late as 2:00 a.m. (it can be as late as this about 1 to 2 times per month, the last time being about a month earlier). The patient also stated that nurses have never missed giving him his medications.

Medical Record Review

Medical History: Obesity, hypertension, atrial fibrillation, hypertension, HIV/AIDS, pulmonary embolism
39 years old

7/12 The patient submitted an SCR for swelling of his hands and knees since naproxen ran out.

7/13 He was seen by a nurse in the clinic. His vital signs were stable. He was referred to an NP within 7 days.

The RN failed to conduct any examination which is dangerous because the specific findings on examination might have indicated that a more urgent problem existed for which the patient required urgent attention from the NP. [Category 4 (RN) error]

7/19 The patient was seen by the NP.

This was a timely and reasonable examination.

7/30 The patient submitted an SCR for "bad chest pains left arm going num [*sic*] pressure on my left side."

He was scheduled to be seen for this by the nurse on 8/1, but the visit was cancelled due to custody (and not just rescheduled as indicated on the Sick Call Log). He was rescheduled to be seen for this by the nurse on 8/6, but the visit was again cancelled due to custody (and not just rescheduled as indicated on the Sick Call Log).

The medical record is consistent with the Sick Call Log in that the visit for his 7/30 SCR was indeed cancelled and rescheduled. In fact this happened twice. The 2 sources are inconsistent in that the Sick Call Log just says he was rescheduled without reason, whereas the medical record shows a reason: custody. [Category 9 (Medical Record) error]

8/8 The patient was finally seen by a nurse for his SCR.

The electronic note for this visit only mentions that the patient presented with a symptom of reflux. However, there is a handwritten note by a second nurse on the SCR itself (where the patient describes the chest pain symptoms described above), in which the nurse indicates that the patient has reflux symptoms, but wrote that he had cardiac-like symptoms only after a nurse explained heart symptoms to him, i.e. implying that the patient confabulated the symptoms he wrote in the SCR. Based on the fact that the patient wrote these symptoms on 7/30, but had no documented interactions with nurses for at least 2 weeks prior to writing the SCR, the nurse's allegation of confabulation based on what the patient supposedly heard from nurses, is not supported.

The patient's allegation that he was never seen for the 7/30 SCR is not true; albeit delayed, he was finally seen for it on 8/8. However, delay of a week to see a patient with chest pain is dangerous and places the patient at risk of harm. [Category 2 (Non-Urgent Care) error]

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 4 (RN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record

On 2 separate occasions this patient received poor care for a new problem. In the first instance, an RN failed to examine the patient, potentially missing a condition for which urgent attention would have been necessary to prevent serious harm. In the second instance, access to care for what could have been an urgent problem (for example, a heart attack) was delayed, most likely due to custody.

Patient 34
Housing Unit 4D

Medical Record Review

Medical History: Breast mass
32 years old

The Sick Call Log shows that he was rescheduled for a 7/30 SCR for "I think I have asthma."

7/30 He was scheduled to be seen in the clinic.

The visit was cancelled and rescheduled due to custody. However, he was seen later in the evening, which is acceptable.

Patient 35
Housing Unit 4A

Medical Record Review

Medical History: Obesity
49 years old

9/13 The patient submitted an SCR for sciatic pain.

The SCR is signed by an NP who wrote "see [EHR]" but I could find no EHR entry, so I could find no evidence that the patient was actually seen for this. [Category 9 (Medical Record) error]

10/8 The patient submitted an SCR for "right leg is swollen and hurts to sit or stand."

10/9 At 9:30 a.m. (approximately), during my tour of the facility, I witnessed the patient on the floor in his cell, with 2 medical staff attending to him.

10/9 At 1:21 p.m., the patient was seen by an NP for hip pain. The NP elicited a history and conducted an examination.

The medical record is devoid of any documentation of the emergency response by medical staff in the housing unit (I checked the medical record on 10/11 and again after 10/15, when it was produced to Plaintiffs). The NP's note makes no mention of the fall. Thus, it appears that, due to lack of proper documentation of care rendered by nurses during an emergent response, the NP was ignorant of the incident during her evaluation later in the day. Given that that later visit was for a closely related problem, the effectiveness and safety of the NP's evaluation was significantly hampered. For example, the NP, thinking that the patient's pain was chronic, gave him a steroid injection, which may have been appropriate. However, if, in fact, the patient also had an acute fracture from the morning's fall, a steroid injection would be dangerous because it would interfere with the healing process. [Category 9 (Medical Record) error]

Summary of Problems

Category 9. Continued Failure to Maintain an Adequate Medical Record

See the notes in italics for a summary of key errors.

Patient 36
Housing Unit 3C

Interview

The patient was listed on the CCC list as having refused his visit in September. The patient stated his last CCC was 6 months earlier and that he never signed a refusal for CCC. The patient also stated that he had submitted an SCR on 9/28 for an abscess of his left arm. The first attempt to see him was on

10/5. He refused. The refusal form was presented by a nurse. He did sign the form, because by that time, he was better. The patient also stated that, for urgent needs, an officer may or may not call a nurse, but either way, staff instruct residents to put in an SCR, even if the need is urgent. The patient stated that, to submit an SCR, he either puts it in the door for an officer or gives it to a nurse. Finally, that patient stated that nurses usually administer evening (9:00 p.m.) medications between 7:00 p.m. and 12:00 a.m., but that it can be as late as 3:00 a.m. (which had not happened for a couple of months).

Medical Record Review

Medical History: High cholesterol, hypertension, asthma
33 years old

9/11 There is a refusal form for CCC, signed by the patient.

9/28-10/5 *I was unable to find any documentation of an SCR for an abscess, an appointment scheduled for it, or a refusal.*

Patient 37
Housing Unit 3C

Interview

My review of the Sick Call Log showed that the patient was listed as having submitted an SCR on 9/10 for throwing up, an appointment that was rescheduled. When I questioned the patient about this, he stated that he doesn't know why the clinic was rescheduled or if he was ever seen. The patient also stated that alarm buttons work for getting his door popped open in the morning, though he hasn't tried it for emergencies, so he doesn't know if officers respond for that.

Medical Record Review

Medical History: Negative
29 years old

9/7 The patient submitted an SCR for urinating and coughing blood for a few days.

9/8 The patient was seen by a nurse. His vital signs were stable. He was referred to an NP.

The nurse failed to conduct any examination other than vital signs (which were missing a measurement of blood oxygen level and orthostatic vital signs to check for blood loss). [Category 4 (RN) error]

9/11 A visit was scheduled with the NP.

The scheduled visit with the NP was cancelled due to custody (not just rescheduled). However, it was rescheduled later in the day and completed then, which is acceptable.

Summary of Problems

Category 4 (RN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of the key error noted.

Patient 38
Housing Unit 3C

Medical Record Review

Medical History: Cocaine abuse
22 years old

9/14 The patient was seen by a nurse urgently for chest pain. He reported sweating, feeling faint, and a history of coronary artery disease. She later discharged him from the clinic with instructions to take ibuprofen, limit activity for 3 days, and to return as needed.

This was a wholly inadequate and dangerous encounter. RNs do not have the licensure or training to evaluate a patient with acute chest pain independently and prescribe intravenous therapy. This was particularly dangerous in a patient with known heart disease. Further, the nurse conducted no examination of the patient's heart (other than vital signs). [Category 4 (RN) error]

9/19 Despite the absence of a referral from the previous visit, the patient was seen by an NP.

Summary of Problems

Category 4 (RN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

See the notes in italics for a summary of the key error noted.

Patient 39
Housing Unit 4D

Interview

The patient was listed on the Sick Call Log as having submitted an SCR on 9/22 for shortness of breath, nausea, and headache; the appointment for the SCR was rescheduled. The patient stated he was on Unit 5 at the time and didn't know about the appointment. The patient was also listed on the CCC list as a "No Show" for his visit in September. The patient stated that he is seen every 3 months in CCC, by either an NP or the physician. He did not recall missing a visit. He stated his medications were discontinued 2 to 3 weeks prior to the interview due to loss of consciousness. He also stated that he recently went to a sick call visit where he had loss of consciousness again and was sent to the ER, and that, after discontinuation of his medications, nurses continued to administer them a "couple of times." The patient said that where he can deposit SCRs depends on the officer on duty, and that the

alarm buttons don't work. Finally, he stated that nurses usually administer evening (9:00 p.m.) medications between 7:30 p.m. and 10:00 p.m., but can administer them as late as 12:00 a.m. (but that the last time they were this late was a while ago).

Medical Record Review

Medical History: Hypertension, GERD
50 years old

9/17 The patient had an appointment scheduled in CCC, but it was cancelled and rescheduled to 9/18, and cancelled again on 9/19 due to custody and rescheduled to 10/1. No CCC appointment took place on 10/1.

As of mid-October, when the updated medical record was produced for me, this CCC visit had not yet taken place. [Category 3 (Chronic Care) error]

9/20 The patient was seen by Dr. Arnold in a follow-up to an incident where he was smoking an illicit substance and lost consciousness. His blood pressure was low, so Dr. Arnold ordered his 3 blood pressure medications stopped and that the patient's blood pressure be measured daily for 7 days. He also ordered him to return to the clinic in 7 days.

The MAR for September is missing from the patient's medical record, so I cannot verify the patient's allegation that nurses continued to administer some of his blood pressure medications even after Dr. Arnold ordered them to be stopped. [Category 9 (Medical Record) error]

9/23 The patient was scheduled for his third daily blood pressure check.

Discontinuation of 3 blood pressure medications at one time is a potentially dangerous action requiring close monitoring, which Dr. Arnold ordered. But nurses failed to carry out this important order on this day, placing the patient at significant risk of harm. They explained the failure as due to custody transport. [Category 6 (Medication) error]

9/24 The patient came to the attention of medical staff emergently (the exact circumstances are not documented in the medical record *[Category 9 (Medical Record) error]*) at some time around 4:00 p.m. He was not alert and "appeared to be locking up." Nurses were unable to measure his vital signs, other than finding his oxygen level was extremely low (72%). After consultation with Dr. Arnold, he was sent to the ER by ambulance for a possible stroke.

9/25 At 1:48 a.m., the patient returned from the ER. A nurse took his vital signs and reviewed his ER report. The ER physician had recommended medications, including antibiotics for an infection.

The nurse failed to contact Dr. Arnold with the results of the ER visit. As such, the orders for antibiotics were not implemented until at least 1.5 days later on 9/26 (I write "at least" because the MAR for September is missing, so, while the medication was ordered on 9/26, I was unable to determine when the patient actually started receiving it), when the patient had a follow-up appointment with Dr. Arnold. Delay in starting a prescribed antibiotic put the patient at risk. [Category 4 (RN) error; Category 6 (Medication) error]

9/26 The patient was supposed to have his blood pressure checked on this day, according to the original order on 9/20 for a blood pressure check daily for 7 days.

The patient's appointment to be seen on this day was cancelled due to custody. Nurses failed to check the patient's blood pressure. Moreover, given the gravity of the patient's condition, including an emergency evacuation late on 9/24, it was imperative that he be re-evaluated clinically, preferably by a practitioner, if not on 9/25, then on 9/26 at the latest. Yet, despite the fact that 9/26 was a Wednesday when most, if not all, of the practitioners would have been on site, not a single health care professional – not an RN, not an NP, not Dr. Arnold – bothered to evaluate the patient (Dr. Arnold was well aware, at this point, that the patient had returned to EMCF as evidenced by the fact that he signed orders on this day for the ER-recommended medications.). [Category 2 (Non-Urgent Care) error; Category 4 (RN & MD) error; Category 6 (Medication) error]

Summary of Problems

Category 2. Continued Lack or Delay of Access to Non-Urgent (Episodic) Care
Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (RN & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record

This patient was experiencing severe symptoms related to low blood pressure. On 9/20, Dr. Arnold ordered his blood pressure medications temporarily held to see if this would ameliorate the problem. To do so safely, he ordered nurses to check the patient's blood pressure daily until his next visit in a week. Nurses failed to do so on 9/23. They gave as a reason that custody did not transport the patient, however, given the importance of the order, there was no reason the nurses could not, and should not, have either insisted on the transport of the patient, or gone to the patient's bedside. They did neither. By 9/24, he was severely ill and had to be rushed to the ER for a possible stroke. I cannot know what his vital signs and condition were on 9/23. However, any reasonable opportunity to prevent the emergency on 9/24 was squandered by ignoring the patient on 9/23.

Patient 40
Housing Unit 4A

Interview

The patient reported that he only takes his medications intermittently because he doesn't trust medical staff. The patient was listed on the CCC list as a "No Show" for his visit in September, but the patient stated that he thought he had been seen in CCC and, if he didn't attend, it would have been due to the lockdown. The patient also stated that he submits SCRs by placing them in the door of the living unit, and then an officer or another inmate puts it in the locked box. The patient said that care is not currently worse than it used to be, and that nurses administer evening (9:00 p.m.) medications between 6:00 p.m. and 12:00 a.m.

Patient 41
Housing Unit 3C

Interview

The patient was listed on the CCC list as refusing his visit in September. He stated he was called to the clinic in September and was placed in a crowded holding cell with many other inmates. A fight was brewing and he was the only one from his living unit, i.e. he was without protection. He was forced to wait so long that he finally told the officer he wanted to leave, and left so he could be safe. He signed a refusal and wrote the reason for his refusal. A staff member came back to him and asked him to sign a fresh one, i.e. without his explanation. He refused to sign a new one. The patient also stated that he was called for a second CCC about 2 weeks prior to the interview. He was again in the holding cell waiting for Dr. Arnold, but the doctor wasn't ready for him. Staff told him that Dr. Arnold had been called to a meeting. After 90 minutes of waiting, he refused the visit. The same thing happened with regard to the refusal form: he signed the refusal form given to him by the officer along with the reason. A nurse asked him to re-sign a fresh form (minus the explanation), so he refused to resign it.

The patient also stated that alarm buttons don't work, and that 3 weeks earlier, an inmate had lost consciousness, and it took 15 minutes to get the picket officer to notice. The patient also stated that, when he was in Unit 5 in July, there were some fires. These occurred only when someone needed to get the officer's attention, which was about 2 to 3 times per week. Finally, he stated that, if an officer called medical, medical usually told them to have the patient fill out an SCR.

Patient 42
Housing Unit 3B

Interview

The patient was listed on the CCC list as being a "No Show" for his visit in September. The patient stated that he was supposed to go out on a consult on 10/7. He was taken to the medical unit the night before and told not to eat after midnight. When staff came to transport him out, he refused because he didn't understand what he was going for. No one from medical discussed this with him and no one gave him a refusal form to sign. The patient also stated that alarm buttons don't work, and that staff ignore them. He said that, if there is a medical problem and no officer is around, it takes a long time to get help.

Medical Record Review

Medical History: Stroke, high cholesterol, substance abuse
33 years old

Sept. *I cannot find any evidence of a CCC visit scheduled for September. The medical record and the CCC Log contradict each other. [Category 9 (Medical Record) error]*

9/19 The patient was seen by a specialist who conducted a fine needle aspiration (biopsy) of a mass in the patient's right neck. The specialist sent EMCF a specialist report. Then on 9/25, the results of the biopsy were reported as suspicious for papillary carcinoma (cancer). It appears

that Dr. Arnold signed off on the 9/19 specialist report on 9/25, and a 9/19 pathology report on 9/27.

As of the date of production of this medical record, on 10/16, there is no indication in the medical record that any further action had been taken on this issue by Dr. Arnold. [Category 4 (MD) error]

I notified Plaintiffs' counsel on 10/26, asking that the pathology report be communicated to the patient's physician. On 11/5, I received a copy of a progress note from Patient 42's medical record indicating that he was discharged from EMCF on 10/23 without any notation that the patient was notified of his biopsy results. The following day, on 10/24, EMCF received a call from the offices of the specialist who performed the biopsy notifying them of an appointment the specialist made for the patient to see him on 10/31. An office clerk at EMCF then called the Drug Treatment Facility to which the patient had been released on parole and "notified [the owner] of appointment and that it important [sic] that [Patient 42] keep this appointment if possible." As of the date of this report, I have still not received any notification that Dr. Arnold or anyone at EMCF made any additional efforts to confirm that Patient 42 was successfully contacted of his appointment or is even aware of the fact that he may have cancer. I have learned, however, that Patient 42 did not show for the 10/31 specialist appointment. [Category 4 (MD) error]

10/7 *I cannot find any evidence of the 10/7 off-site trip that the patient told me about during my interview. No visit was either scheduled or refused on, or around 10/7.*

Summary of Problems

Category 4 (MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 9. Continued Failure to Maintain an Adequate Medical Record

On 6/28, Dr. Arnold requested a specialist consultation for possible biopsy of a lump on this patient's neck. The biopsy was performed on 9/19. On 9/27, Dr. Arnold reviewed the biopsy report indicating that the patient might have cancer of the thyroid gland ("Suspicious for papillary carcinoma"), a cancer which is lethal without treatment, but highly curable with treatment. Despite this alarming report, he released the patient to parole on 10/23 – nearly a month later – without taking any steps to address the dire need to arrange for follow-up and possible cancer treatment. It is only when the specialist contacted EMCF on the day after Patient 42's release that a clerk at EMCF asked someone at the drug treatment facility to which Patient 42 had been released to notify the patient of "an important" specialist appointment on 10/31. The patient did not report for that appointment. As of the date of this report, I do not know if the patient was indeed notified of his appointment, and more importantly, whether he has been notified of his condition. Thus, despite knowing for almost a month that a patient for whom he arranged a biopsy of a neck mass had biopsy results suspicious for thyroid cancer, Dr. Arnold did nothing to assure that the patient was aware of the results or to make arrangements for follow-up before releasing him to parole. To my knowledge, the patient is still unaware of his condition. Dr. Arnold's clear neglect of his patient has put his patient's life in peril.

Patient 43
Housing Unit 3C

Interview

Based on my review of the CCC log, this patient was listed as being a "No Show" for his visit in September. When I questioned him about this, he stated that he didn't know about a missed clinic in September. The patient also stated that, when he saw an NP in CCC 1 month prior to the interview, she told him he would be seen daily for 7 days, but that never happened. He stated that his blood pressure has been "sky high." Finally, the patient stated that alarm buttons don't work, and that it is virtually impossible to get assistance until officers come around for count, which is every 2 hours.

Medical Record Review

Medical History: Hypertension
49 years old

9/19 The patient had a CCC visit with an NP. His blood pressure was elevated, so the NP ordered him to receive a stat dose of a blood pressure medication, daily blood pressure monitoring until his blood pressure was less than 160/100, and to return in 2 weeks.

As alleged by the patient, no one checked his blood pressure as ordered. The NP also documented this at the follow-up visit on 10/3. [Category 3 (Chronic Care) error; Category 6 (Medication) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

See the notes in italics for a summary of the key error noted.

Patient 44
Housing Unit 1

Interview

The patient stated he is followed in CCC for a thyroid problem. He was taking medications in the morning, but was then switched to the evening to let him sleep. The patient was listed on the CCC list as being a "No Show" for his visit in September. He stated that he doesn't remember this event.

Patient 45
Housing Unit 4B

Interview

When I found Mr. Garrett, he was in the middle of group therapy: there were upwards of 60 men in a square formation doing group therapy. In our interview, the patient stated he has hypertension and glaucoma. He stated that nurses run out of medications frequently, and that he'd been out of a medication for 4 days. In addition, the patient was listed on the CCC list as being a "No Show" for his visit in September. He stated that he was called up, but when he got there, they said they weren't ready for him, but he was seen in October. Finally, the patient stated that, for submitting SCRs, it depends on the officer. Usually he gives it to an officer or another inmate.

Patient 46
Housing Unit 4B

Interview

The patient stated that nurses frequently run out of medications, though it has been better for the past 6 months. He stated that morning medication administration has been better for the past 6 months, and that nurses usually administer evening (9:00 p.m.) medications between 6:00 p.m. and 9:00 p.m., but sometimes as late as 2:00 a.m. to 3:00 a.m. In addition, the patient was listed on the CCC list as being a "No Show" for his visit in September. He stated that he was not aware of no showing. He stated that, for submitting SCRs, he either leaves the SCR in the Unit door or gives it to an officer. Finally, he stated that alarm buttons don't work.

Patient 47
Housing Unit 3D

Interview

The patient was listed on the CCC list as refusing his visit in September. He stated that he did refuse the clinic. Based on his presentation, including his affect, movements, and the content of his speech, I deemed that he was not a reliable informant so I aborted the interview.

Patient 48
Housing Unit 5A

Interview

The patient stated that, when he submits a non-dental SCR, he is seen within 2 days. However, dental requests take a long time; despite having submitted 4 to 5 SCRs over a year, he was recently seen at dental clinic for the first time. The patient stated that nurses do not conduct welfare checks in Isolation cells. He stated that he couldn't remember the last fire; they hadn't had any since installation of the new lights. And he stated that the alarm buttons don't work, and so it is difficult to get officers' attention. One night, he needed his inhaler but never got it.

Patient 49
Housing Unit 2

Interview

Based on my review of the CCC Log, the patient was listed as being a "No Show" for his visit in September. During my interview, the patient stated he was out of the prison then. For SCRs, the patient stated that he puts them in the locked box himself. Finally, he stated that nurses usually administer evening (9:00 p.m.) medications between 8:30 p.m. and 10:00 p.m., but sometimes as late as 2:00 a.m. to 3:00 a.m. (this last happened about 2 to 3 months prior to the interview; lately it is better). He said that nurses never miss his medications.

Patient 50
Housing Unit 5D

Interview

The patient stated that he is in CCC for blood clots and wounds. The patient was listed on the CCC list as being a "No Show" for his visit in September. He was not sure about this. The patient stated that nurses usually administer evening (9:00 p.m.) medications between 11:00 p.m. and 12:00 a.m., but sometimes as late as 3:00 to 4:00 a.m. (this last happened 2 to 3 days prior to the interview). The patient said that, when delivering medications, nurses throw the pill envelope under the door. He also said that nurses do not conduct welfare checks in the Isolation cells, that he had not seen any fires, and that the alarm buttons don't work. He stated that it takes about 30 minutes to get an officer's attention by beating on the doors. He provided the example of another inmate for whom this happened recently (I interviewed the other person, Patient 28).

Patient 51
Housing Unit 2

Interview

The patient was listed on the CCC list as refusing his visit in September. He stated that he probably did refuse it; he's "short tempered." He stated that refusal slips are sometimes brought by officers for the patients to sign.

Patient 52
Housing Unit 6

Interview

The patient denied any problems with medical care at EMCF. He was listed on the CCC list as refusing his visit in September. He stated he did refuse it, because he felt good. Someone brought a refusal form for him to sign, but he doesn't remember who it was. He did not get any counseling, but did sign the form.

Patient 53
Housing Unit 5D

Interview

Based on my review of the CCC Log, the patient was listed as being a "No Show" for his visit in September. During my interview, he stated he was not sure if he missed that clinic. He stated he is followed in CCC for low weight and hypertension. Nurses throw medications under the door in an envelope. Nurses deliver evening (9:00 p.m.) medications around 2:00 a.m. to 3:00 a.m. (for example, the morning of my interview). Nurses do not conduct welfare checks in the Isolation Unit. It is difficult to get urgent medical attention. He needed a nurse for lightheadedness 4 months ago. He had to wait 20 minutes for count to get an officer's attention. A nurse then came and took his blood pressure, but he received no further follow-up. The last fire he remembers was about 2 months earlier, and before that, last year. Things are better in this zone (5D) because it's an honor zone, but he hears the fire alarm in other units daily.

Medical Record Review

Daily Welfare Checks

> The patient was in an Isolation cell in April, May, and June. I reviewed the log of welfare checks.
>
> *Nurses documented welfare checks for all days in May. However, in April, they only documented checks on 8 of 30 days and in June on only 10 of 30 days. [Category 7 (Welfare Check) error]*

Urgent Care Access

> *I could find no documentation of any nursing intervention for lightheadedness in the months prior to my visit, so I was unable to evaluate the patient's claim.*

Summary of Problems

Category 7. Failure to Perform Welfare Checks

See the notes in italics for a summary of the key error.

Patient 54
Housing Unit 2D

Medical Record Review

Medical History: High cholesterol, GERD, seizures, macular hole in right eye, hypertension, cocaine abuse
38 years old

3/20 He was seen by an NP for injury to his hand "last Friday [3/16]." "He was referred to clinic per Nurse Woods." The NP ordered a hand X-ray that day and gave him an injection for pain. She instructed the patient to return to clinic as needed.

Based on this documentation, it is highly likely that he was seen by a nurse shortly after his injury and that the nurse failed to provide urgent care, which would have included immobilization and quick follow-up with a practitioner. [Category 1 (Urgent Care) error; Category 4 (RN) error]

The order to return to clinic "as needed" was dangerous. The patient would need to return if he had a fracture; how would he know that he had a fracture? [Category 4 (NP) error]

3/20 The X-ray was done the same day and showed a mildly displaced fracture of the proximal 5th metacarpal bone.

There is no note from the nurse, but the NP's report is consistent with the patient's claim of care by a nurse a few days earlier. [Category 1 (Urgent Care) error]

The NP did not immobilize his hand. Given the NP's subjective knowledge that he might have a fracture (as demonstrated by concern great enough to give a pain injection and get an X-ray) his hand should have been immobilized for pain control and to prevent further damage to the bone and surrounding soft tissue. The fact that the fracture was displaced (the bone ends were misaligned) made the need for immobilization greater. [Category 4 (NP) error]

The radiologist also performed a chest X-ray, thus, a health care staff member at EMCF added an order that was not given by the NP, i.e. a staff member did something outside his or her scope of practice. [Category 4 (Provider) error]

3/21 The X-ray report was not reviewed until today, and then acknowledged by a practitioner whose name I cannot read.

This would not have been so bad, except for the fact that the patient's hand was still not immobilized and he had a displaced fracture. [Category 4 (NP) error]

3/22 Dr. Arnold signed off electronically on the X-ray.

At that point, there was still no immobilization, yet Dr. Arnold did nothing. [Category 4 (MD) error]

3/23 The same NP saw the patient at the patient's request, to get the results of the X-ray. She ordered a hand brace.

There is no evidence that the NP bothered to check the results of the X-ray (that she herself had ordered on 3/20) or that she apprised herself of the fact that the patient had a fracture. The fracture required appropriate immobilization (which a hand brace does not provide) and referral to a specialist for alignment of the displaced bone ends, and casting. [Category 4 (NP) error]

4/2 The same NP met with the patient yet again, at the patient's request to get the results of his X-ray. The NP finally noted the fracture from 3/20. She ordered the brace to be continued and was going to consult with Dr. Arnold for further recommendations.

There is no evidence the NP discussed the case with Dr. Arnold. From this point on, the fracture was ignored, including during a CCC visit with Dr. Arnold on 7/10. [Category 4 (NP & MD) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 4 (RN, NP & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

This patient was indeed subject to problematic care for his hand. He fractured his hand. A nurse was aware of it, but did not nothing immediate other than referring him to a practitioner 4 days later. That practitioner obtained an X-ray, the results of which were available the very same day, but never bothered to check it that day, or 3 days later when the patient came back asking for the results. She did not check it until the second time the patient came asking for results, now some 2.5 weeks after the fracture. Other than providing a hand brace (the wrong treatment), the NP (who was treating the patient) and Dr. Arnold (who reviewed the X-ray and also saw the patient in clinic 3 months later), did nothing. A fracture of a metacarpal bone of the hand can lead to significant dysfunction if not treated properly. The fact that the broken ends of the bone were displaced made the fracture more complicated (more likely to cause ongoing damage to the surrounding soft tissues, more likely to heal in a crooked, dysfunctional position). After a week or two without re-alignment and casting, the bone can heal in a permanently dysfunctional position (or not heal at all). Thus this injury required immediate immobilization (splint) by the nurse, an X-ray within a day or two, and then referral to a specialist within another few days to re-align the fracture, place the patient in a cast, and monitor the healing over the next several weeks. Thus 3 separate medical professionals – an RN, an NP, and a physician – all knowingly ignored a serious medical need, the result of which was an untreated fracture of the hand.

Patient 55
Housing Unit 4C

Medical Record Review

Medical History: Seizures, asthma, GERD
56 years old

Neurology Referral

I was unable to find anything in the patient's medical record suggesting a referral to a neurologist nor a need for one.

Patient 56
Housing Unit 4D

Medical Record Review

Medical History: Peripheral neuropathy, high cholesterol, GERD, hypertension, thyroid hormone deficiency
58 years old

MARs

Nurses failed to administer the following:

	Medication	*Justification*
July	*lithium (for bipolar disorder) x 2 doses*	*none*
	simvastatin (for high cholesterol) x 6 doses	*none*
	gemfibrozil (for high cholesterol) x about 15 doses	*out of stock*
	gabapentin (for neuropathy) x about 15 doses	*out of stock*
	thyroxine (for thyroid deficiency) x almost all doses	*out of stock*
Aug	*amlodipine (for hypertension) x 3 doses*	*none*
	thyroxine x 2 doses	*none*
	thyroxine x 4 doses	*out of stock*
Sept	*most medications were given as ordered*	

Nurses consistently failed to administer ordered medication to this patient. [Category 6 (Medication) error]

Summary of Problems

Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

See the notes in italics for a summary of key errors.

Patient 57
Housing Unit 2D

Interview

Based on my review of the Sick Call Log, the patient was listed as having submitted an SCR on 9/1 for hip pain, but then refused to be seen. During my interview, the patient stated that he did not refuse to be seen nor did he sign a refusal. The patient reported that after submitting an SCR it takes 7 to 10 days to be seen.

Patient 58

Housing Unit 3A

Interview

The patient maintains (and showed me) detailed logs he maintains of medication administration. According to him, nurses failed to administer some or all medications as follows:

March x 3 days
April x 14 days
May x 3 days
June x 3 days
July no days

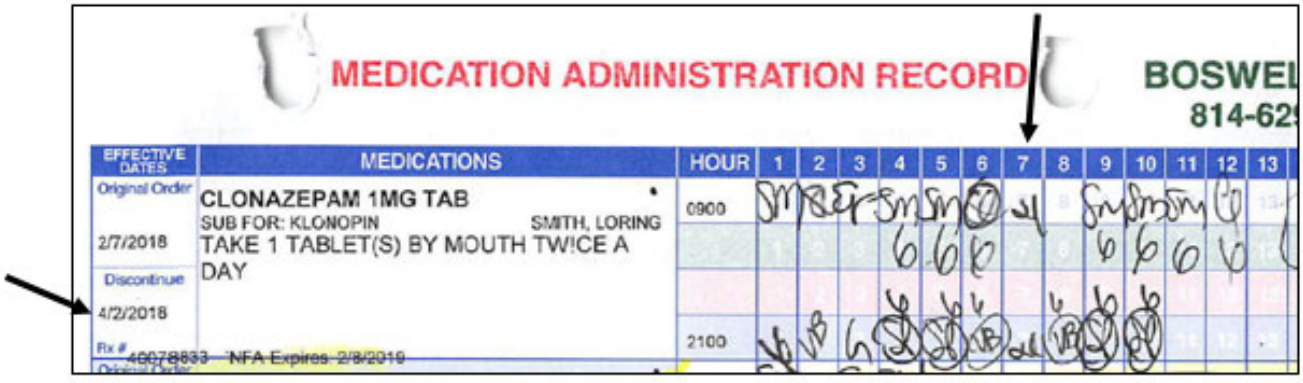
He claimed that sometimes nurses document on the MARs that they have given him medications when they have not (e.g. one time the nurse the next day said: "How could they have marked that they gave you the medication yesterday? It hasn't come in yet.")

With regard to alarm buttons, he stated that his works, but others' don't.

Medical Record Review

The figure below from this patient's MAR for April verifies the patient's claim regarding inaccuracy of records. The medication physically ran out on 4/4. According to the medical record, it was not reordered until 4/11 and did not actually become physically available again to administer until 4/18. So the nurse's documentation on the morning and in the evening of 4/7 (vertical arrow on the right) is highly suspicious for falsification of the medical record. [Category 9 (Medical Record) error]

It is also notable that nurses ignored the order from 4/3 to 4/10: The order for this medication legally expired on 4/2 (biased arrow to the left), so nurse should have stopped giving it (or attempting to give it, as the case may be) on that date and sought a new order. Yet nurses continued to behave as if there were a valid order for this medication, as indicated by their initials twice a day from 4/3 to 4/10. [Category 6 (Medication) error]



Summary of Problems

Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

Category 9. Continued Failure to Maintain an Adequate Medical Record

It is highly likely that nurses' documentation of care they provided is false. Additionally, nurses ignored the order to discontinue the medication when it expired, a violation of safe medication practice, set in place so that medications are only administered when a licensed practitioner has determined that continuation of a medication is the appropriate treatment.

Patient 59
Housing Unit Medical Unit

Interview

Based on my review of the Sick Call Log, this patient was listed as having submitted an SCR on 9/3 to see the doctor, but refusing to be seen. During my interview, he stated that the sick call request was for the psychiatrist and that he did not refuse, but was not seen for 1 week after submitting the request.

Patient 60
Housing Unit 3C

Interview

He reported that he hasn't encountered any problems with the provision of medical care.

Patient 61
Housing Unit 3C

Interview

The patient was listed on the Sick Call Log for having submitted an SCR on 9/1 for back problems and refusing the visit. He stated that he did not refuse this visit and, since he was never seen for this complaint, submitted another SCR a couple of days prior to the interview. The process for submitting an SCR depends on the officer. Some let him put it in the locked box, others do not.

Patient 62
Housing Unit Unavailable

Medical Record Review (limited to MAR)

12/13 2017 The patient was prescribed a 10-day course of an antibiotic (Keflex®), 4 times a day, to begin today.

Instead, the medication was not started until 12/15/17. [Category 6 (Medication) error]

Given the start date (2 days late), the end date also needed to be moved back by 2 days (to 12/24/17) so that the patient would receive the full 10 days of medication. Instead, nurses continued the medication until 12/27/17, for a total of 13 days. In other words, nurses ignored the order and gave the patient an overdose (or at least intended to do so – see below). [Category 6 (Medication) error]

Finally, nurses sporadically failed to administer multiple doses of the medication, including 9 of the last 12 doses. [Category 6 (Medication) error]

Summary of Problems

Category 6. Continued, and Worsening, Failure to Provide Medications to Patients

This patient was subject to multiple medication errors by nurses, including delaying by 2 days an order to start an antibiotic medication, failing to administer many doses of the medication, and violating the order to administer the medication for 10 days, instead administering it for 13 days.

Patient 63
Housing Unit Unavailable

Medical Record Review (contained within the Extraordinary Occurrence Report, or "EOR")

3/28 The patient had an urgent visit with an NP. The patient had been involved in a fight and suffered a laceration to his ear. The NP attempted to get in touch with Dr. Arnold for consultation.

The NP documented, "Unable to get in contact with Dr. Arnold. His mailbox is full and is not accepting messages." [Category 1 (Urgent Care) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care

See the notes in italics for a summary of the key error.

Patient 64
Housing Unit 4

Medical Record Review

Medical History: High cholesterol, back pain, hypothyroidism due to thyroidectomy/Hashimoto's Disease; alcohol abuse, hypertension, bipolar disorder
55 years old

7/11/ The patient was seen in CCC by an NP. He was doing well. He was on a water pill (HCTZ),

2017 his thyroid blood test was normal (TSH 6/22/17 was 5.7), and his cholesterol was also normal (LDL 80).

The NP's text indicates the patient also had asthma and cancer, but neither of these appear in the patient's formal problem list. [Category 9 (Medical Record) error]

Further, the patient was not being followed in CCC for either asthma or cancer. [Category 3 (Chronic Care) error]

Aug. 2017 MAR

Nurses gave none of the AM doses of gemfibrozil (for cholesterol), no doses of HCTZ (for hypertension), and only 1 dose of levothyroxine (for thyroid). [Category 6 (Medication) error]

Nurses made no notifications to practitioners regarding any of these failed doses of medications. [Category 4 (RN) error]

Sept. 2017 MAR

Nurses gave none of the AM doses of gemfibrozil (for cholesterol), no doses of HCTZ (for hypertension), and only 1 dose of levothyroxine (for thyroid). [Category 6 (Medication) error]

Nurses made no notifications to practitioners regarding any of these failed doses of medications. [Category 4 (RN) error]

10/4/2017 The patient had a CCC visit with an NP. The NP felt that his conditions were under good control (despite 129/90 which is actually not good control, but close). His LDL level on 10/4/17 was normal.

10/4/2017 The patient's thyroid blood test was extremely high (TSH = 26; normal 0.2 – 4.5).

This test result is very abnormal and indicates (paradoxically, by the high number) that the patient does not have enough thyroid hormone in his body and in this patient's case, since his own thyroid gland was not working and he was dependent on the hormone via pills, that he wasn't getting enough medication. Thus, the patient was now in a state called hypothyroid. It required quick attention. An NP signed off on this result on 10/6/17, but did nothing to address it. And this is the last time the thyroid blood test was checked until the patient's death. [Category 4 (NP) error]

The patient's thyroid hormone level was low because nurses had only administered 2 doses out of the 60 scheduled doses in the previous 2 months. Nothing changed after this alarming test result was returned; The MAR for October shows that staff continued to not give him his levothyroxine even after this high TSH. [Category 6 (Medication) error]

10/9/2017 The patient was switched from one cholesterol medication (gemfibrozil) to another (simvastatin).

10/21/2017 The patient submitted an SCR for "no feeling in [right] side of arm, possible stroke." He was seen the same day by a nurse. She found that he had no facial weakness and was able to raise both arms, had no slurred speech or confusion, and was able to make a fist but unable to squeeze. She concluded that he had "possible stroke." Her plan was "No treatment needed"; "Pt able to clip nails using right hand without difficulty. Observed minutes later by security and medical staff in medical masturbating."

While the patient's behavior may be inappropriate, the ability to use nail clipper doesn't preclude a stroke, and a stroke could have caused his abnormal behavior. Thus the nurse's findings required further exam and notification of the physician. Instead she did nothing. [Category 4 (RN) error]

10/24/2017 The patient submitted an SCR for not having feeling in his right arm. He was seen the next day by a nurse. He reported to her that he had had numbness to the right forearm and hand, but only on the outside portion, since 10/21. On examination, he had decreased grip strength. This nurse referred the patient to the physician, to be seen within 7 days.

The patient had a discrete neurologic abnormality which could be caused by a number of different conditions, including blood clot and stroke. He thus required referral immediately, not in 7 days. [Category 4 (RN) error]

10/30/2017 The patient submitted a third SCR for the same problem. He was seen the next day by a nurse with the same outcome: referral within 7 days.

As on the previous visit, the patient had a discrete neurologic abnormality which could be caused by a number of different conditions, including blood clot and stroke. He thus required referral immediately, not in 7 days. [Category 4 (RN) error]

Oct. 2017 MAR

Nurses gave only 6 doses of HCTZ and levothyroxine. [Category 6 (Medication) error]

Nurses made no notifications to practitioners regarding any of these failed doses of medications. [Category 4 (RN) error]

11/1/2017 The patient had a visit with Dr. Arnold who referred him for a CT scan of the head and added aspirin to his medications.

11/2/2017 The CT scan showed no acute abnormality. However it showed a possible lesion at the base of the skull (in medial left middle temporal fossa). The radiologist opined that this might be a meningioma, aneurysm, or neoplasm (cancer) and recommended an MRI.

11/4/2017 An MRI showed no mass, but due to asymmetry, the radiologist recommended a repeat MRI in the short term.

11/16-17/ Nurses stopped administering all medical medications.

2017 *I was unable to find an order discontinuing these essential medications (levothyroxine, HCTZ, simvastatin, and aspirin). The HCTZ expired on 11/15/17 and there is no evidence it was renewed. [Category 3 (Chronic Care) error; Category 6 (Medication) error]*

Dec. 2017 MAR

According to the MAR, 3 of the patient's 4 medications (levothyroxine, simvastatin, and aspirin) were switched to KOP (keep on person) at the beginning of the month.

However, there is no record that the patient actually received the bottles of medications. *[Category 6 (Medication) error]*

As for the HCTZ for his blood pressure, which expired on 11/15/17, it appears to have been forgotten altogether. *[Category 3 (Chronic Care) error]*

1/3 At 10:55 p.m., the patient was found unresponsive in his cell. CPR was started in the housing unit and continued as he was transported to the medical unit. EMS declared the patient dead on scene.

It is very difficult to administer effective chest compressions during CPR while moving a patient on a small gurney. The patient should have been left in the housing unit (or, if there were custody concerns, moved the short distance into the hallway outside the living unit) until EMS arrived. [Category 4 (NP) error]

Post Mortem

There is no Medical Examiner's Report or autopsy in the patient's file. [Category 5 (Deaths) error]

Summary of Problems

Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (RN & NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

Patient 64 was prescribed medications for his chronic diseases. However, nurses failed to provide many of those medications. Given that he did not receive any HCTZ (for hypertension) or levothyroxine (for hypothyroidism) in the 1.5 months prior to his death, it is very possible that this contributed directly to his death. There are a number of possible mechanisms for this causative link, including the solitary effect of no blood pressure medication causing high blood pressure, the combined effect of this plus the lack of thyroid hormone replacement causing hypothyroidism, and the solitary effect of lack of thyroid hormone replacement causing cardiac arrhythmias or cardiac tamponade. *[Category 6 (Medication) error]*

It is also possible an error by medical staff after Patient 64 was found in cardiac arrest may have contributed to his death. Medical staff should have kept the patient at the original scene performing CPR until arrival of EMS rather than transporting him the long distance to the medical unit while trying to perform CPR *en route*. The successfulness of CPR is very dependent on the quality of the CPR administered, and it is very difficult to deliver effective CPR on a moving gurney. It is possible that the suboptimal CPR he received during transport to the medical unit reduced the chances of his surviving the cardiac arrest. *[Category 1 (Urgent Care) error; Category 4 (RN) error]*

Aside from these errors, which may be causally related to the death, my review revealed many other errors which, while not causative in this case, could be causative for another patient if not corrected. Sadly, none of the errors I have identified, neither those which could be causally related to the death, nor those which were not in this case but might in future cases, were addressed by Dr. Arnold in his MR. Two (of the many errors) were identified by Dr. Arnold's superiors at Centurion, though there is no evidence that steps were taken to correct them; the errors could thus persist in the care of future patients. *[Category 5 (Deaths) error]* Further, when ignored in the MR process, the remaining errors should have been, but were not, addressed by MDOC. *[Category 12 (Monitoring) error]*

Patient 65
Housing Unit 3

Medical Record Review

Medical History: Back pain, hypertension, headaches, seizures, bipolar disorder
46 years old

7/25/2017 The patient had a CCC visit with an NP and was scheduled to return in 6 months.

At this visit, the NP failed to assess the status of his seizure disease since his last visit, which is, essentially, the main purpose of the CCC visit. The only indication at all of the status of his seizures has to be gleaned from the global Clinical status: "same" and degree of control "good." [Category 3 (Chronic Care) error; Category 4 (NP) error]

Sept. 2017 MAR

The patient was on phenobarbital, Depakote®, Keppra® (all 3 for seizures), metoprolol (for hypertension), buspirone and olanzapine (both for mental health), Benadryl®, and ibuprofen. Nurses administered almost all doses of all medications.

Oct. 2017 MAR

The patient remained on the same medications and nurses administered almost all doses of all medications.

Nov. 2017 MAR

The patient remained on the same medications.

Nurses failed to administer the following medications [Category 6 (Medication) error]:

Medication	*Justification*
Keppra (for seizures) x 6 doses	*none or out of stock*
Keppra x 5 doses	*out of stock*
olanzapine (for MH) x 7 doses	*none or out of stock*

Nurses failed to notify a practitioner of the missed medications. In fact, a 11/3/17 nursing note says, "Compliant with morning medication administration" despite the fact that olanzapine had not been given that day, and on 11/17/17 another nursing note says, "compliant with routine medications" but again, a medication (Keppra) was not administered. Thus the 2 statements by the nurse(s) that the patient took his medications are in direct contradiction with the 2 statements that he did not; one of each of these documentation pairs in the patient's medical record is thus false. [Category 9 (Medical Record) error]

12/2/2017 The patient submitted an SCR for "having trouble taking a breath."

12/5/2017 The patient was seen by a nurse for the SCR. He reported difficulty taking deep breaths about every other day; he described it as feeling like he's trying to breathe through a straw that has been pinched off. He also complained of shortness of breath upon lying down.

Other than examining the patient for jock itch, the entirety of the nurse's evaluation, including history and physical, were: "Lungs clear. No distress. No pain. No cough." The nurse provided detailed instructions on care of jock itch and referred the patient to a practitioner on 12/7/17. This evaluation was grossly incomplete. Given the symptoms, especially new onset of orthopnea (shortness of breath upon lying down) which can be a symptom of serious heart or lung disease, the patient required immediate referral to a practitioner, not 2 days later. The nurse also provided absolutely no instructions to the patient with regard to his breathing problem. [Category 4 (RN) error]

12/7/2017 The patient was seen by Dr. Arnold. He told the doctor it felt like he had pinching in his airway and then it would open up again, every 3 to 4 days. He also complained of shortness of breath with mild exertion. His blood pressure (102/81), while a little low, was not remarkably low compared to his own baseline. The doctor diagnosed "Reactive airway disease by history" (asthma) and started the patient on a rescue inhaler (levalbuterol, Xopenex® 2 puffs 4 times a day as needed) and ordered him to return in 6 weeks.

12/18/2017 Nurses gave the patient the inhaler to keep on his person.

An 11-day delay in providing a necessary medication for breathing is unreasonably long. [Category 6 (Medication) error]

Inhalers are complicated medications to use correctly and require education, skills training, and observation of skill. There is no evidence the physician or nurses provided any of this. [Category 3 (Chronic Care) error; Category 4 (RN) error]

Dec. 2017 MAR

Nurses failed to administer multiple doses of seizure and hypertension medications, some for no reason, some for "No Show," and some for out of stock. Particularly incredible is documentation of most of the medications from 12/19 to 12/27: During the beginning of this period, nurses documented "no show" as the reason for 4 of 5 misses. But then for the following 2 to 4 days, they documented "out of stock." It is not logical that the nurses could have had medications available for several days that were not given and then be out of stock. In either case, the patient did not get several doses, including 7 doses of metoprolol (including 3 doses in a row, without notification of a practitioner, contrary to policy) and many doses of the seizure medications (also without notification of a practitioner). [Category 6 (Medication) error; Category 9 (Medical Record) error]

1/6 The patient was seen by an RN for dry nose, during an "AM" sick call, in response to an SCR of 1/6. His vital signs were normal. The evaluation was adequate.

This encounter was entered as late documentation after the patient's death. Late documentation can happen. However, the nurse only noted that the event took place during "AM" sick call. Basic nursing documentation standards required that she document the time. This was especially important in light of subsequent events and the fact that she knew about them. [Category 9 (Medical Record) error]

1/6 At 12:22 p.m.[12], officers called for medical assistance because the patient was not breathing. The patient had been in the Day Room eating and then he stood up and appeared to be choking. An inmate applied the Heimlich maneuver. Officers asked the patient if he was choking and he indicated yes. They then walked him out of the zone, at which point he collapsed. There is some confusion in the notes about whether officers or nurses started CPR, but I think the confusion is that the officers tried a Heimlich thrust, and then when the nurses arrived, they started CPR. Nurses began "thrusts" and mouth sweeps. They noted his lips were purple and skin pale and cold. At 12:23 p.m., someone called for a gurney and the patient was transported to the medical unit. Staff continued CPR in the medical unit and applied oxygen via nasal cannula. The Charge Nurse notified EMS at approximately 12:30 p.m., they arrived in the medical unit at 12:45 p.m., and left at approximately 1:10 p.m.

It is very difficult to administer effective chest compressions during CPR while moving a patient on a small gurney. The patient should have been left where he was until EMS arrived. [Category 4 (RN) error]

During a cardiac arrest every minute counts. The 8 minute delay between when the patient's dire condition was identified and when EMS was called was too long. Further, officers should have contacted EMS immediately rather than waiting for medical personnel. [Category 1 (Urgent Care) error; Category 4 (RN) error]

The nurses' statement that they used a nasal cannula (plastic tube placed in nostrils) to deliver oxygen suggests that CPR was not performed correctly. Nurses are trained health care professionals. As such, they should perform CPR by pressing on the chest and ventilating the patient either by pinching his nose and blowing in his mouth, or forcing air into his mouth

[12] This information is from a combination of the patient's medical record and the EOR.

and nose by squeezing a bag attached to a mask. Using the first method, the nurses would have been unable to pinch the patient's nose. Using the second method, nurses would have had difficulty forming a seal between the mask and the patient's face (with a tube in the way). In either case, then, ventilations would likely have been ineffective. [Category 4 (RN) error]

1/6 The patient died in the hospital ICU.

Jan. MAR

All medications were given prior to the patient's death, except Depakote for 2 days with no explanation. [Category 6 (Medication) error]

Post Mortem

There is no final Medical Examiner's Report or autopsy in the patient's file. [Category 5 (Deaths) error] There is a post-mortem toxicology which reports the patient's blood phenobarbital (a seizure medication) level was 7.7 mcg/mL (below the typical target range which is 10-30 mcg/mL) and his blood levetiracetam (a seizure medication) level was 11 mcg/mL (within the typical target range which is 3-60 mcg/mL)[13].

4/12 Dr. Arnold signed an order for a change in 1 of the patient's medications (change metoprolol 50 bid to carvedilol 12.5 qd).

When Dr. Arnold wrote this order, his patient had been dead for 3 months. *[Category 4 (MD) error]*

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (RN & MD). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

In the months prior to his cardiac arrest, EMCF staff committed several errors in care of Patient 65 for a chronic and an acute problem, both unrelated to his death. First, over a period of months, several health care providers failed to provide the patient with appropriate care for his seizure disorder. During his last CCC visit for seizures prior to his death, the NP failed to adequately assess the status of his seizure disorder. In the last 3 months of his life, nurses failed miserably in administering the medications prescribed for his seizure disorder. *[Category 4 (NP) error; Category 6 (Medication) error]*

[13] The level of a third seizure medication the patient was taking (Depakote®) was not measured.

While the above errors did not likely contribute to Patient 65's death, errors by medical staff after Patient 65 was found in cardiac arrest may have contributed to his death. First, there was a delay of 8 minutes in summoning EMS. As EMS has the capability of providing advanced level treatment unavailable in the prison, every minute of delay in its arrival decreases the chances that a patient can be successfully resuscitated. Thus, it is possible that the delay in summoning EMS reduced the chances of Patient 65 surviving. *[Category 1 (Urgent Care) error]* Second, medical staff should have kept the patient at the original scene performing CPR until arrival of EMS rather than transporting him the long distance to the medical unit while trying to perform CPR *en route*. The successfulness of CPR is very dependent on the quality of the CPR administered, and it is very difficult to deliver effective CPR on a moving gurney. It is possible that the suboptimal CPR he received during transport to the medical unit reduced the chances of his surviving the cardiac arrest. *[Category 1 (Urgent Care) error; Category 4 (RN) error]* Third, based on their documentation of their CPR technique, it is likely that nurses were not delivering sufficient oxygen to his lungs, decreasing the likelihood he would survive the cardiac arrest. *[Category 1 (Urgent Care) error; Category 4 (RN) error]*

Whether causative or not in the death of Patient 65, any of the errors I have described might be for another patient. Thus, these errors should have been identified and reviewed as part of the MR conducted by Dr. Arnold and by Centurion. They were not. *[Category 5 (Deaths) error]* When missed by the MR, they should have been addressed by MDOC. They were not. *[Category 12 (Monitoring) error]* The dangerous conditions would thus continue unchecked, posing risk of death to future patients.

Patient 66
Housing Unit 3

Medical Record Review

Medical History: Seizures, moderate mental retardation, schizophrenia
54 years old

Sept. 2017 MAR

Nurses failed to administer the following medications [Category 6 (Medication) error]:

Medication	*Justification*
Dilantin® (for seizures) x 10 doses	*combination of none, no show, not in stock*

10/5/2017 The patient was seen in CCC by an NP. He reported his last seizure was 2 months earlier. His blood pressure was 87/64 (dangerously low) and his pulse was 92. The NP marked his control as "Fair" and ordered him to return to CCC in 3 months.

The NP failed to address the patient's dangerous low blood pressure. If this reading was accurate, it defined an urgency, if not emergency. [Category 4 (NP) error]

To properly manage his condition, the NP needed to find out more information about the patient's recent seizure, such as the frequency and nature of the seizure, e.g. was the

frequency going up or down? Did the patient fall and injure himself? How long did it last? [Category 3 (Chronic Care) error; Category 4 (NP) error]

Oct. 2017 MAR

This MAR is missing from the patient's medical record. [Category 9 (Medical Record) error]

11/20/2017 An NP refilled his seizure medication (Dilantin, 300 mg in the evening).

I cannot determine when the patient ran out of Dilantin. According to the September MAR, the order expired on 10/25/17. So even if he received the Dilantin, as ordered, during the month of October, it would have stopped on 10/25/17. Thus, in the best case, the patient was without Dilantin from 10/26 until 11/20 (at least, see the November MAR below) when it was reordered. [Category 3 (Chronic Care) error; Category 6 (Medication) error]

Nov. 2017 MAR

As noted above, the re-order for Dilantin began on 11/20/17. However, even then, nurses did not administer any Dilantin on:

11/20/17 (for no reason)
11/21/17 (out of stock)
11/24-25/17 (for no reason)

Thus, nurses failed to provide the patient with his seizure medication from at least 10/25/17 (if not earlier) until 11/26/17, more than a full month. Other medications were also given inconsistently during this month. [Category 3 (Chronic Care) error; Category 6 (Medication) error]

12/29/2017 The patient was seen in CCC by an NP. His blood pressure was 99/64. She ordered for him to return to CCC in 6 months.

The NP made no assessment of the patient's seizure activity since the last visit other than marking his status as "Same" and his control as "Good." This assessment made no clinical sense, however. If his status was the same, and at the time of his last CCC visit, his control was fair, it is illogical and nonsensical to state that his current status is also good (i.e. better than it was). [Category 4 (NP) error]

Dec. 2017 MAR

Nurses failed to administer 4 doses of Dilantin (2 for no reason, 2 for no show). *[Category 6 (Medication) error]*

This patient's medical record also contains the MAR of Patient 62. *[Category 9 (Medical Record) error]*

While undesirable, and potentially dangerous, documents are occasionally misfiled in other patient's medical records. However, the presence of another patient's MAR in this particular patient's medical record is especially troubling and revealing. This patient died. His medical

record would have undergone careful scrutiny by myriad people and medical professionals including Dr. Arnold; the EMCF Health Services Administrator; the EMCF Nursing Director; all members of the Mortality Review Committees at EMCF and Centurion Headquarters, including Centurion's Medical Director; MDOC's Medical Director (Dr. Perry), and possibly others. Further, the misplaced MAR was not a subtle easily-overlooked anomaly. Review of the patient's MARs, especially the one from the month prior to the patient's death, was key to understanding the circumstances of his death, and given that the misplaced MAR came from the month before the patient's death, it should have been immediately obvious. This finding supports other data in this report indicating that mortality reviews at EMCF were, at best, cursory. [Category 5 (Deaths) error; Category 12 (Monitoring) error]

1/4 The patient's blood Dilantin level was 6.7 (normal level: see below).

1/7 An NP wrote an order to increase the Dilantin dose from 300 to 400 mg.

The NP's order was inappropriate. Dilantin dosing is not managed by blood level, but rather by patient response, and given that, at the conclusion of the last CCC visit, the NP thought control of the patient's seizure activity was "Good," increasing the dose was not indicated. Further, unnecessarily increasing the dose puts the patient at increased risk of the side effects of the medication. For example, Dilantin can cause low blood pressure, and given his low blood pressure at the time of his previous 2 CCC visits, prescribing him more Dilantin than he needed was particularly unwarranted. [Category 4 (NP) error]

1/18 At 6:52 a.m., officers were called for medical assistance because the patient was found unresponsive and pulseless. Medical staff arrived at 6:56 a.m. (according to the EOR) or 7:02 a.m. (according to the medical record). Nurses started CPR and transported him back to the medical unit while performing CPR. EMS was called at 7:05 a.m. and arrived at 7:35 a.m. The patient was pronounced dead by EMS at the scene.

In the Emergency Report and Transfer form, an RN stated that the patient "had a seizure during the night, room mate unable to get help." As the Housing Unit Log shows that the last custody count took place at 6:25 a.m. and then a call for medical assistance was made at 6:58 a.m.[14]*, that means that the room mate may have been attempting to secure help for as long as 33 minutes. As irreversible brain damage occurs within 4 to 6 minutes of the heart stopping, the delay in securing assistance may have been fatal. [Category 1 (Urgent Care) error]*

Jan. MAR

The patient's Dilantin dose was ordered increased from 300 to 400 mg on 1/7. However nurses did not implement the new order until 1/11. They then failed to administer it on 1/13 (no show), 1/14 (no reason), and 1/16 (no show). [Category 6 (Medication) error]

Post Mortem

[14] The discrepancy between this time and the time cited, 6:56 a.m., for the arrival of the medical staff arises because the latter time was derived from medical records, and the former from custody records.

There is no Medical Examiner's Report or autopsy in the patient's file. [Category 5 (Deaths) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

At least 5 findings in this case may have been causally linked to the patient's death.

First, and most important, was the roommate's inability to summon assistance from officers. Even if the Unit Log (which showed the last count at 6:25 a.m., and a call for medical assistance at 06:58 a.m.) is correct regarding the time of the last count, there would have been a 33 minute window of no ability to communicate. We do not know what condition the patient was in or for how long, but earlier intervention may have saved his life. *[Category 1 (Urgent Care) error]* It is also notable that no one interviewed the roommate as part of the death investigation, nor was this issue addressed in the mortality review. *[Category 5 (Deaths) error]* When missed by the mortality review, it should have been addressed by MDOC. It was not. *[Category 12 (Monitoring) error]*

Second, even if the ambulance had to travel from Meridian, 30 minutes is a long response time and may have decreased the chances of this patient's survival. *[Category 1 (Urgent Care) error]* In other cases I reviewed, the ambulance response time was much shorter. The ambulance response time should have been reviewed as part of mortality review. It was not. *[Category 5 (Deaths) error]* When missed by the mortality review, it should have been addressed by MDOC. It was not. *[Category 12 (Monitoring) error]*

Third, upon discovering the unconscious patient at 6:52 a.m., custody staff did not bother to check for a pulse. CPR was not started until at least 6:56 a.m. when it was started by medical staff.[15] A 4-minute delay in beginning CPR almost guarantees that the patient will have some irreversible brain damage, and greatly increases the chances the patient will not survive. Thus, custody staff's failure to check for a pulse and begin CPR violated EMCF policy, officer training, and greatly increased the likelihood that Patient 66 would not survive. *[Category 1 (Urgent Care) error]* This error should have been reviewed as part of the mortality review. It was not. *[Category 5 (Deaths) error]* When missed by the mortality review, it should have been addressed by MDOC. It was not. *[Category 12 (Monitoring) error]*

Fourth, the patient should have been kept at the original scene until arrival of EMS because it is difficult to deliver effective CPR on a moving gurney. It is possible that the suboptimal CPR he

[15] This opinion is based on the inference that officers would have found the patient pulseless. We cannot know this because they did not check for a pulse, but given the clinical circumstances and narratives, it is a reasonable inference.

received during transport to the medical unit, while not causally linked to his collapse, reduced the chances of his surviving the resuscitation attempts. *[Category 1 (Urgent Care) error; Category 4 (RN) error]* This error should have been reviewed as part of the mortality review. It was not. *[Category 5 (Deaths) error]* When missed by the mortality review, it should have been addressed by MDOC. It was not. *[Category 12 (Monitoring) error]*

Fifth, the patient's Dilantin dose was unnecessarily increased 11 days prior to his death. His blood pressure was already low, and Dilantin is known to further lower blood pressure. Thus, the increase in Dilantin may have caused his collapse and death. This error should have been reviewed as part of the mortality review. It was not. *[Category 5 (Deaths) error]* When missed by the mortality review, it should have been addressed by MDOC. It was not. *[Category 12 (Monitoring) error]*

Aside from these errors, which may be causally related to the death, my review revealed many other errors which, while not causative in this case, might be for another patient. One of these errors was identified by Dr. Arnold's superiors, though there is no evidence that steps were taken to correct it and the error persisted in the care of future patients. *[Category 5 (Deaths) error]* Further, when ignored in the mortality review process, the remaining errors should have been, but were not, addressed by MDOC. *[Category 12 (Monitoring) error]*

Patient 67
Housing Unit 3

Medical Record Review

Medical History: High cholesterol, depression, deafness, hip pain, urinary retention, seizures, pancreatitis, diabetes (on insulin)
42 years old

Medications at death: buspirone, benztropine, Zyprexa®, propranolol, aspirin, pancreatic enzyme, Zocor®, metformin, Prilosec®, insulin, gabapentin, Depakote®, phenobarbital, ibuprofen

11/5/2017 The patient had a CCC visit with an NP.

The NP failed to assess the patient's seizure disorder, other than filling in the status as "Same" and control as "Good." [Category 3 (Chronic Care) error; Category 4 (NP) error]

1/24 The patient was seen by an NP for an acute burn to his left hand. His blood pressure was 164/98 (moderately elevated). He had a second degree burn of the fourth digit. The NP ordered a burn cream (Silvadene®), wound care daily for 14 days, ibuprofen twice a day, an antibiotic pill 3 times daily for 14 days, and for the patient to return to clinic in 2 days for a blood pressure check.

Nurses failed to administer 6 doses of the antibiotic. [Category 6 (Medication) error]

1/26 The patient saw the NP for the follow-up visit. His blood pressure was 142/100 (better, but still elevated). He had yellow material weeping from the wound. The NP then learned that

nurses had failed to provide wound care and ibuprofen for pain, so she reordered them. She also gave the patient another injection of pain medication on the spot to help control pain.

Nurses ignored orders for wound care and pain medications. This failure introduced a very serious potential for infection, and clearly resulted in poor pain control.[16] *[Category 6 (Medication) error]*

2/7 The NP conducted another follow-up visit for both the patient's blood pressure and burn. His blood pressure was now back to normal (102/80).

2/11 The patient had a CCC visit with an NP.

2/13 At 9:22 p.m., the patient was found slumped over in his cell. A nurse who was already on the unit started CPR. An automated external defibrillator (AED) was applied on the scene (no shock indicated). The patient was transported back to the medical unit while CPR was continued. Staff were unsuccessful at inserting an intravenous catheter. EMS was called at 9:33 p.m. and arrived at 9:44 p.m. The patient left for the hospital at 10:15 p.m. He died at the hospital.

It is very difficult to administer effective chest compressions during CPR while moving a patient on a small gurney. The patient should have been left where he was until EMS arrived. [Category 4 (RN) error]

During a cardiac arrest every minute counts. The 11-minute delay between when the patient's dire condition was identified and when EMS was called was too long. [Category 1 (Urgent Care) error; Category 4 (RN) error]

Post Mortem

There is no Medical Examiner's Report or autopsy in the patient's file. [Category 5 (Deaths) error]

Summary of Problems

Category 1. Continued Lack of Access to Urgent Care
Category 3. Continued Lack or Delay of Access to Chronic Care
Category 4 (RN & NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

In the months prior to his cardiac arrest, EMCF staff committed several errors in care for this patient during care for two problems, both unrelated to his death. First, an NP failed to properly assess the

[16] The NP's follow-up note of February 7 indicates that the patient reported having gotten wound care. So he may have been getting it, but it was not documented. However, how often he got it and whether he actually got all the care that was ordered (burn cream, saline rinse, dressing) is unknown.

status of his seizure disorder during a CCC visit specifically arranged for that purpose. Such assessment is important for preventing further seizures as well as side effects from seizure medications, both of which present a risk of harm to the patient. *[Category 3 (Chronic Care) error; Category 4 (NP) error]* Second, after sustaining a second degree burn to his hand, nurses repeatedly failed to follow practitioner orders to treat the burn with antibiotics and pain medication, subjecting the patient to pain – pain severe enough to eventually require an injection – and the risk of infection from the burn. *[Category 6 (Medication) error]* While not causative in this patient's death, these errors might be for another patient. Thus, these errors should have been identified and reviewed as part of the MR conducted by Dr. Arnold and by Centurion. They were not. *[Category 5 (Deaths) error]* When missed by the MR, they should have been addressed by MDOC. They were not. *[Category 12 (Monitoring) error]*

While the above errors did not likely contribute to Patient 67's death, errors by medical staff after Patient 67 was found in cardiac arrest may have contributed to his death. First, there was a delay of 11 minutes in summoning EMS. As EMS has the capability of providing advanced level treatment unavailable in the prison, every minute of delay in its arrival decreases the chances that a patient can be successfully resuscitated. Thus, it is possible that the delay in summoning EMS reduced the chances of Patient 67 surviving. *[Category 1 (Urgent Care) error]* Second, medical staff should have kept the patient at the original scene performing CPR until arrival of EMS rather than transporting him the long distance to the medical unit while trying to perform CPR *en route*. The successfulness of CPR is very dependent on the quality of the CPR administered, and it is very difficult to deliver effective CPR on a moving gurney. It is possible that the suboptimal CPR he received during transport to the medical unit reduced the chances of his surviving the resuscitation attempts. *[Category 1 (Urgent Care) error; Category 4 (RN) error]*

Dr. Arnold did identify 2 additional non-causally-related aspects of care in the MR which required improvement. First, he noted that the patient was on over 10 (actually 14) medications and that this should have been discussed with the patient or an alternative plan found. While this is a useful observation, it should be noted that Dr. Arnold was well aware of the patient's complex medication regimen prior to the patient's death; for months, he had been signing off on the patient's MARs, but did nothing. Based on these MARs, if he had examined the patient's record, he would have also been aware that this complex patient was being managed by NPs, and he could have moved the patient to his own clinic. Again, he did not. Second, Dr. Arnold noted that the patient might not have been a good candidate for 1 of the diabetes medications he was receiving. While identification of any areas of improvement is helpful, the two only issues identified by Dr. Arnold were of relatively minor importance compared to the other issues discussed above, and Dr. Arnold had opportunity while the patient was still alive to address both issues, but did not.

Patient 68
Housing Unit 1

Medical Record Review

Medical History: Gout, MRSA (staph infection), GERD, urethritis, coronary artery disease, cardiomyopathy, hypertension, depression, diabetes (on insulin)
60 years old

Medications at death: insulin, metformin, simvastatin, aspirin, potassium, ranitidine, ibuprofen, amlodipine, amiodarone, carvedilol, furosemide, lisinopril

1/31 The patient was found slumped over in the housing unit. Use of "spice" was suspected. He was taken to the medical unit. His systolic blood pressure was 58 (extremely low). He was given intravenous fluids. When he failed to improve in the following 30 minutes, he was transferred by ambulance to the ER. All his heart and blood pressure medications were stopped.

2/1 At 5:10 a.m., the patient returned from the ER. He was examined by an RN who took his vital signs, which were normal (blood pressure now up to 115/75). The nurse did not have any clinical report from the ER. The patient was admitted back to the facility.

The nurse should have sought the medical records from the hospital, so that she would know what transpired and what continuing care was required. She did not. [Category 4 (RN) error]

Moreover, the nurse failed to contact a practitioner to consult on how the patient should be managed nor did any practitioner see the patient until 2/11, when he had a new problem. Thus, the patient was managed by an RN independently…and blindly. The most serious consequence of this error was medication mismanagement. All of the patient's heart and blood pressure medications (amiodarone, amlodipine, carvedilol, furosemide, lisinopril, nitroglycerin patch) had been stopped the previous day when his blood pressure suddenly dropped. Consideration now needed to be given to restarting them (or some of them). Instead, no such consideration was made and the patient continued without these essential medications. This medication vacuum continued until 2/11, when they were all restarted upon return from a second ER trip. [Category 1 (Urgent Care) error; Category 4 (RN) error]

Jan. MAR

Though the patient received most of his doses of some cardiac medications, nurses failed to provide him a nitroglycerine patch on 16 days (twice noted as out of stock, the rest for no reason). [Category 6 (Medication) error]

Nurses failed to administer at least 20 doses of insulin. [Category 6 (Medication) error]

2/10 According to information the patient provided to an NP during his visit on 2/11, he told a nurse on this day of right arm pain and concern he might be having a stroke, but the nurse did nothing.

2/11 The patient submitted an SCR for right arm pain at rest. He thought it might be a stroke.

2/11 The patient was seen by a nurse for the SCR. His blood pressure was 155/99 (slightly elevated). He stated he had run out of blood pressure medications 3 to 4 days earlier. The RN consulted with the physician and then sent the patient to the ER. According to a later patient report, they had wanted to keep the patient in the hospital to do an MRI, but he signed out of the hospital against advice because he didn't want to be cuffed to the bed. Upon return, all this previously stopped heart and blood pressure medications were restarted (see February MAR below).

2/12 The patient was seen by a cardiologist as an outpatient. The cardiologist opined that he was doing well.

2/28 At 8:00 p.m., nurses were called to the patient's housing unit because he had been found unarousable. His blood pressure was 63/38 (extremely low). He was taken to the medical unit. Nurses contacted an NP who gave orders to give fluids intravenously and send the patient to the ER. He was sent at 8:35 p.m.

Feb. MAR

Nurses failed to administer at least half of the patient's doses of insulin without explanation.

As noted above, all the patient's heart and blood pressure medications except aspirin (amiodarone, amlodipine, carvedilol, furosemide, lisinopril, nitroglycerin patch) were discontinued on 1/31 when his blood pressure was low and then staff forgot to restart them until another ER trip on 2/11 triggered their collective memories, and the medications were restarted. However, even then, nurses continued to fail to administer many doses of these medications: over the remaining 17.5 days of February, nurses failed to administer the patient 23 doses of his various heart and blood pressure medications. [Category 6 (Medication) error]

3/3 At 10:00 p.m., the patient was found unconscious in his cell. According to the custody report, he had a pulse at the time. Medical assistance was requested. Upon arrival, nurses found no pulse and began CPR. He was transported to the medical unit while CPR was continued and then transported at 10:34 p.m. to the hospital by ambulance. He died in the ICU 2 days later.

It is very difficult to administer effective chest compressions during CPR while moving a patient on a small gurney. The patient should have been left where he was until EMS arrived. [Category 4 (RN) error]

The medical record is devoid of any time mileposts other than the beginning and ending time of the incident. It would have been impossible for reviewers to ascertain the timeliness of various activities. [Category 9 (Medical Record) error]

Mar. MAR

The patient received most of his medications for the 3 days of the month he was at EMCF, except he received only 1 of 6 scheduled doses of insulin. [Category 6 (Medication) error]

Post Mortem

There is no Medical Examiner's Report or autopsy in the patient's file. [Category 5 (Deaths) error]

<u>Summary of Problems</u>

Category 1. Continued Lack of Access to Urgent Care
Category 4 (RN). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers

Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

Patient 68 suffered from a number of serious chronic medical conditions for which he was receiving life-sustaining medications, including coronary heart disease, hypertension, and diabetes. EMCF health care staff failed miserably in their responsibility to administer many of the prescribed medications. At one point, upon the patient's return from an evaluation in the ER, staff appear to have simply forgotten to restart any of the several medications (except aspirin) that the patient was taking for his heart and blood pressure conditions. He went without these medications for 10 days. *[Category 1 (Urgent Care) error; Category 4 (RN) error]* Aside from this error, in the two months prior to his death, nurses often failed to administer one or more of the patient's several medications for his heart, hypertension, and diabetes. More specifically, from February 11 until his cardiac arrest on March 3, nurses failed to administer the patient 23 doses of various heart and hypertension medications. *[Category 6 (Medications) error]* Given the patient's age, serious cardiac history, and risk factors, it is very possible that the repeated failures to provide Patient 68 with his medications led to his cardiac arrest and death.

Due to his previous use of "spice," the coroner suspected this substance was the immediate cause of death. However, no drug screen was conducted, and the autopsy is missing from the medical record which would include the degree to which – if at all – the coroner was aware of the patient's underlying chronic diseases and his very poor medical care in the weeks prior to his death. Thus, the coroner's suspected cause of death must be viewed as very tentative if not speculative.

Another error by medical staff after Patient 68 was found in cardiac arrest may have contributed to his death. Medical staff should have kept the patient at the original scene performing CPR until arrival of EMS rather than transporting him the long distance to the medical unit while trying to perform CPR *en route*. The successfulness of CPR is very dependent on the quality of the CPR administered, and it is very difficult to deliver effective CPR on a moving gurney. It is possible that the suboptimal CPR he received during transport to the medical unit reduced the chances of his surviving the resuscitation attempts. *[Category 1 (Urgent Care) error; Category 4 (RN) error]*

All of the errors identified above were serious, and some may have caused Patient 68's death. Thus these errors should have been identified and reviewed as part of the MR conducted by Dr. Arnold and by Centurion. They were not. *[Category 5 (Deaths) error]* When missed by the MR, they should have been addressed by MDOC. They were not. *[Category 12 (Monitoring) error]*

Finally, this patient was very complex medically, yet all his chronic care was managed by an NP. While such management was legally within the scope of practice of an NP, and there is no evidence that care provided by NPs was causally related to his death, this patient's chronic care (and that of future patients in his condition) should have been managed by Dr. Arnold to avoid errors in care.

Patient 69
Housing Unit 1

Medical Record Review

Medical History: Seizures, bipolar disorder, hepatitis C, HIV (undetectable viral load, high CD4) 40 years old

Medications at death: divalproex, Keppra®, olanzapine, Genvoya®

12/12/2017 The patient had a CCC visit with an NP. The patient informed the NP that his last seizure was 3 weeks before and he was not taking his seizure medications (divalproex, Keppra®). It is not clear from the NP's note if that meant he did not want them or was not getting them from the nurses. The NP ordered him to return to clinic in 3 months.

The NP's documentation regarding the patient's seizure medication status is poor and incomplete: It is not clear if the patient did not want medications, or wanted them but was not getting them. However, regardless of which meaning it had, the NP had a clear duty to address the issue with the patient, document the conversation, and most importantly, construct a treatment plan. Instead, the NP simply continued the medications without further discussion. Thus, whichever was the underlying cause of the patient not getting treatment for an active seizure condition, her actions ensured that he would continue not to get treatment unless the medication problem resolved on its own. [Category 3 (Chronic Care) error; Category 4 (NP) error]

Jan. MAR

Nurses failed to administer almost all doses of divalproex (most for no show, some for no reason). Nurses failed to administer more than half of doses of Keppra (most for no reason, some for no show). [Category 6 (Medication) error]

There is no record of the nurses notifying any practitioner. [Category 6 (Medication) error]

Dr. Arnold signed off on this MAR on 1/31.

Feb. MAR

Nurses failed to administer almost all doses of divalproex (most for no show), and almost all doses of Keppra (most for no reason, some for no show). [Category 6 (Medication) error]

There is no record of the nurses notifying any practitioner. [Category 6 (Medication) error]

3/26 The patient had a CCC visit with an NP for seizures. The NP documented the status of seizures as "Improved" and control as "Good." She did not order a return to clinic.

The NP failed to elicit from the patient any history regarding seizures since the time of the last CCC despite the history of seizures prior to his last CCC visit. Moreover, the NP failed to address the issue of medications that was described by the NP during the previous CCC visit.

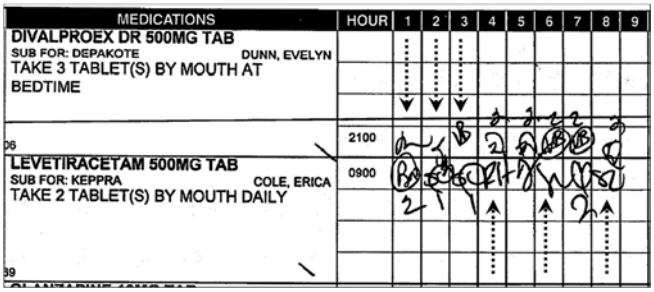
This was critically important and is one of the essential reasons for have a patient attend a CCC. [Category 4 (NP) error]

Mar. MAR

Nurses failed to administer most doses of divalproex (for no reason or no show), and about a third of the doses of Keppra. [Category 6 (Medication) error]

Apr. MAR

Nurses administered only 6 of 16 possible doses of the patient's seizure medications (see figure; arrows indicate administered doses; "1" denotes patient refused; "2" denotes no show). [Category 6 (Medication) error]



4/9 At 7:24 a.m., officers called for medical assistance at the housing unit for the patient who stated, "I feel like I'm going to have a seizure." He had no seizure activity at this time. Two nurses walked the patient to the medical unit where he had his blood drawn (previously scheduled) to measure the amount of seizure medications in his blood. (The results, which returned *post mortem*, were: at 7:53 a.m., Keppra = <2.0 (therapeutic level 6 – 46); valproic acid (divalproex) <3.5 (therapeutic level 50 – 100).) When returning to the hallway in the medical unit, he fell to the floor and had a seizure. He was taken on a gurney to the treatment room where he had a second seizure, at which time nurses obtained an order from Dr. Arnold to send the patient to the ER. While waiting for EMS, the patient had a third seizure and was then pulseless. EMS was unable to intubate him and departed with him for the ER at 9:06 a.m.

Post Mortem

There is no Medical Examiner's Report or autopsy in the patient's file. [Category 5 (Deaths) error]

The custody report regarding this death reports that "The drug screen (Toxicology Report) for Offender [Patient 69] came back positive for FUB-AMB (Synthetic Cannabinoid ["spice"])." It also reports that the coroner "suspect[s] spice usage."

The timing of this drug screen was not specified, i.e. whether it was obtained at some point days or weeks prior to the death or whether it was obtained very close to the time of death. This information is key to determining a possible cause, or causes, of death: the closer to the time of death that this drug screen was obtained, the more possible it is that drug use may have been a contributing factor in the death. Thus, the MR was deficient in not specifying when the drug screen was obtained. [Category 5 (Deaths) error]

<u>Summary of Problems</u>

Category 3. Continued Lack or Delay of Access to Chronic Care

Category 4 (NP). Continued, and Worsening, Failure to Provide Health Care Consistent with What is Expected of Health Care Providers
Category 5. Continued, and Worsening, Failure to Assess Causes of Deaths
Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 12. Continued Lack of an Adequate Headquarters-Based System for Monitoring the Quality of Care Delivered by the Vendor

Patient 69 suffered from a seizure disorder for which he required 2 seizure medications. Unfortunately, over a period of at least 3 months, nurses failed to administer most – and sometimes all – of these medications. Aside from the nurses, other medical staff were aware, or should have been aware, of this, while the patient was still alive, including:

- an NP the patient informed of this during a CCC visit on 12/17/2017 *[Category 4 (NP) error]*;
- another NP who would have, or should have, reviewed this information during a CCC visit on 3/26 *[Category 4 (NP) error]*; and
- Dr. Arnold, who signed off on the January MAR on 1/31, which showed how little medication the patient was getting. *[Category 4 (MD) error]*

As a result of not getting his medication on a regular basis, the level of these essential medications in his blood stream were below the necessary therapeutic level (actually, the drugs were undetectable), so he had virtually no protection from having seizures. On 4/9, he had seizures. He died during his third seizure in a row. In the absence of a more plausible explanation, it is likely the patient died as a result of seizures or the complication of a seizure. It is thus reasonable to conclude that failure to receive seizure medications played a causative role in his death, and that therefore his death was likely preventable.

Despite this glaring set of facts, in his MR, Dr. Arnold found absolutely no room for improvement in the care received by this patient. The Centurion Mortality Review Committee agreed with Dr. Arnold's findings, but recommended that they "educate all clinicians/nursing/mental health on medication non-compliance; education at every visit," a recommendation which begins to address the fringes of the errors in this case. However, there is no evidence that steps were taken to correct it. *[Category 6 (Deaths) error]* There is also no evidence that MDOC addressed the absence of any corrective action on the part of EMCF and Centurion. *[Category 12 (Monitoring) error]*

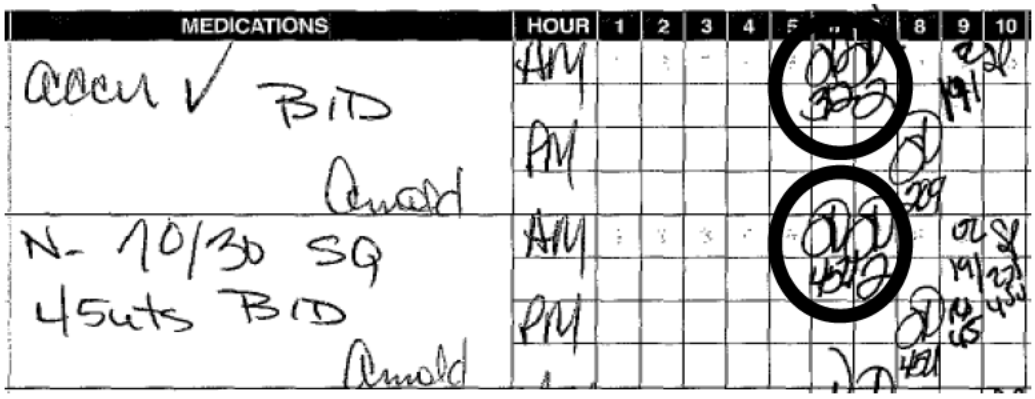
Sadly, the death of Patient 69 is perhaps the best illustration of the most lethal pairing of conditions that can exist in a health care operation: dangerous operations and the inability to identify and fix those operations. In the months prior to Patient 69's death, 4 other patients who died at EMCF suffered from repeated failure to receive necessary medications for serious conditions. In fact, for two of those patients, the medications they failed to receive were the very same types of medications that Patient 69 failed to receive – seizure medications. Yet, despite this repeated "banging at the door of sensibility," EMCF and MDOC remained deaf. That Patient 69 would, most likely, die of failure to provide his medication – and that other patients in the future will die from this and other errors – is predictable. That that state of the affairs is preventable, is tragic.

Patient 70
Housing Unit 3

Medical Record Review (limited to MAR)

Oct. MAR (10/1 through 10/10)

The patient's MAR (below) reflects that he was ordered to receive an injection of insulin (N 70/30) every morning and every evening. Instead, based on my on-site review of the MAR, he received no doses at all during the month of October until the evening of October 8. Notably, the MAR produced several weeks later showed that an administration occurred on the morning of October 6 and that the patient was a "No Show" on the morning of October 7. As such, it appears that the MAR was either falsified before it was produced or that EMCF nurses are noting medications administrations days or weeks after they have occurred, which violates all rules of nursing medication documentation and is itself dangerous because anyone using the medical record before they made their retroactive documentation would be making decisions based on bad data. Regardless, Patient 70 missed either 14 or 15 of his first 16 doses of insulin for October. [Category 6 (Medication) error; Category 9 (Medical Record) error]



CENT-POSTTRIAL-003344.

Summary of Problems

Category 6. Continued, and Worsening, Failure to Provide Medications to Patients
Category 9. Continued Failure to Maintain an Adequate Medical Record

See the notes in italics for a summary of the key error.

Attachment 2

Documents upon which I relied

- Off-Site Specialist Referral Log
- ER Trip Log
- Community Hospitalization Log
- CCC Log
- List of patients receiving medication on the days of my visit
- Trial Transcripts of Dr. Perry, Dr. Arnold, and Nurse Brookshire
- Sick Call Logs (CENT-POSTTRIAL-001165 - CENT-POSTTRIAL-001804)
- Mortality reviews for the six patients who died in 2018 (CENT-POSTTRIAL-000968 - CENT-POSTTRIAL-000989) and corresponding Extraordinary Occurrence Reports
- Pages from Housing Unit Log books for Units 3 and 5 for March – September, 2018
- EMCF Health Care Policies and Procedures, reviewed 5/15/18, dated 9/21/16 (CENT-POSTTRIAL-000001 - CENT-POSTTRIAL-000458)
- Patient medical records or portions thereof of Patients 2-28, 30, 31, 33-39, 42, 43, 53-56, 58, 64-69
- October 2018 Medical Administration Records for 199 patients
- Centurion 2016 Contract with MDOC
- Meridian Star Report of August 8, 2017 reporting death of Jack Harvey
- Meridian Star Report of March 16, 2017 reporting death of Joseph Gentry
- Stern Reports, 2016 and 2014 (PTX-1501)

Attachment 3

List of patient names

	Name	Number
Patient 1	[redacted]	
Patient 2		
Patient 3		
Patient 4		
Patient 5		
Patient 6		
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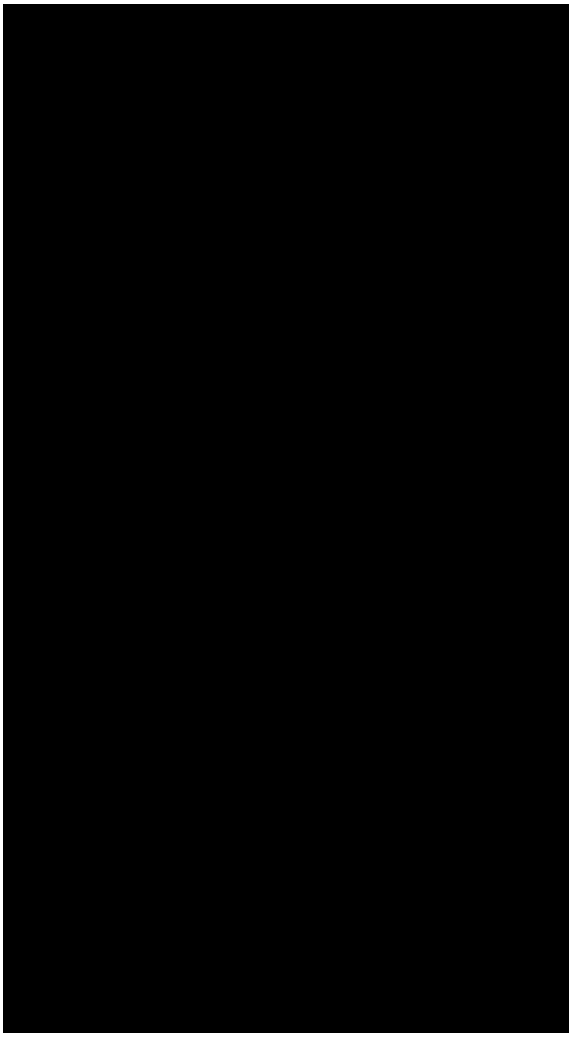
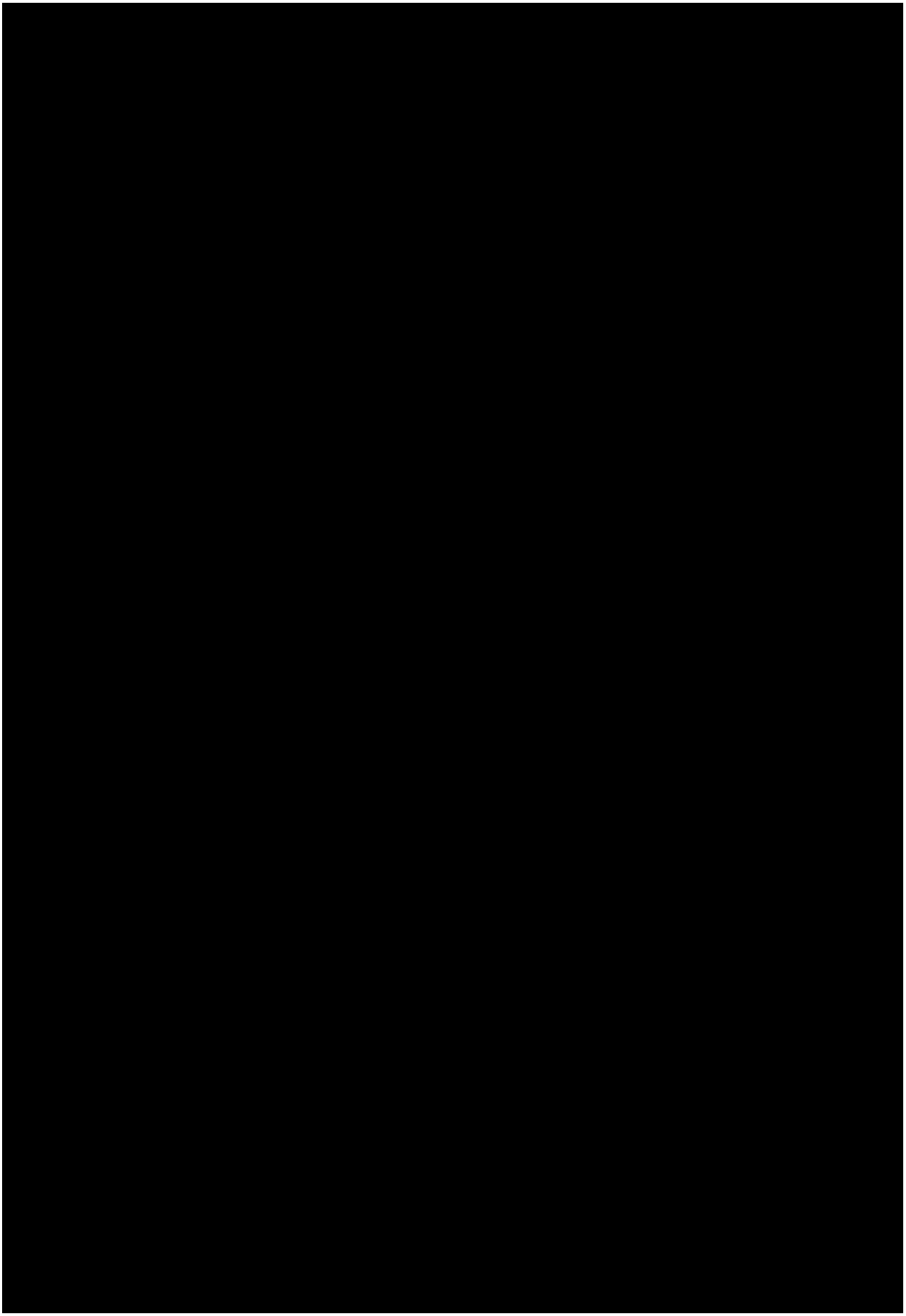
Patient 70



Attachment 4

MARs Reviewed

Name	Number	Name	Number
[redacted]			



Attachment 5

Curriculum Vitae

MARC F. STERN, M.D., M.P.H., F.A.C.P.

November, 2018

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+1 (360) 701–6520

SUMMARY OF EXPERIENCE

CORRECTIONAL HEALTH CARE CONSULTANT **2009 – PRESENT**

Consultant in the design, management, and operation of health services in a correctional setting to assist in evaluating, monitoring, or providing evidence-based, cost-effective care consistent with constitutional mandates of quality.

Current activities include:

- Advisor to various jails in Washington State on patient safety, health systems, and related health care and custody staff activities and operations, and RFP and contract generation (2014 -)
- Consultant to Human Rights Watch to evaluate medical care of immigrants in Homeland Security detention (2016 -)
- Consultant to the US Department of Justice, Civil Rights Division, Special Litigation Section. Providing investigative support and expert medical services pursuant to complaints regarding care delivered in any US jail, prison, or detention facility. (2010 -) (no current open cases)
- Consultant to Broward County Sheriff to help develop and evaluate responses to a request for proposals (2017 -)
- Physician prescriber/trainer for administration of naloxone by law enforcement officers for the Olympia, Tumwater, Lacey, and Evergreen College Police Departments (2017 -)
- Consultant to the Civil Rights Enforcement Section, Office of the Attorney General of California, under SB 29, to review the healthcare-related conditions of confinement of detainees confined by Immigration and Customs Enforcement in California facilities (2017 -)

Previous activities include:

- Member of monitoring team (medical expert) pursuant to Consent Agreement between US Department of Justice and Miami-Dade County (Unites States of America v Miami-Dade County, *et al.*) regarding, *entre outre*, unconstitutional medical care. (2013 - 2016)
- Jointly appointed Consultant to the parties in Flynn v Walker (formerly Flynn v Doyle), a class action lawsuit before the US Federal District Court (Eastern District of Wisconsin) regarding Eighth Amendment violations of the health care provided to women at the Taycheedah Correctional Institute. Responsible for monitoring compliance with the medical component of the settlement. (2010 - 2015)
- Consultant on "Drug-related Death after Prison Release," a research grant continuing work with Dr. Ingrid Binswanger, University of Colorado, Denver, examining the causes of, and methods of reducing deaths after release from prison to the community. National Institutes of Health Grant R21 DA031041-01. (2011 - 2016)
- Consultant to the US Department of Homeland Security, Office for Civil Rights and Civil Liberties. Providing investigative support and expert medical services pursuant to complaints regarding care received by immigration detainees in the custody of U.S. Immigration and Customs Enforcement. (2009 - 2014)
- Special Master for the US Federal District Court (District of Idaho) in Balla v Idaho State Board of Correction, et al., a class action lawsuit alleging Eighth Amendment violations in provision of health care at the Idaho State Correctional Institution. (2011 - 2012)
- Facilitator/Consultant to the US Department of Justice, Office of Justice Programs, Bureau of Justice Statistics, providing assistance and input for the development of the first National Survey of Prisoner Health. (2010-2011)
- Project lead and primary author of National Institute of Corrections' project entitled "Correctional Health Care Executive Curriculum Development," in collaboration with National Commission on Correctional Health Care. NIC commissioned this curriculum for its use to train executive leaders from jails and prisons across the nation to better manage the health care missions of their facilities. Cooperative Agreement 11AD11GK18, US Department of Justice, National Institute of Corrections. (2011 - 2015)
- Co-teacher, with Jaye Anno, Ph.D., for the National Commission on Correctional Health Care, of the Commission's standing course, *An In-Depth Look at NCCHC's 2008 Standards for Health Services in Prisons and Jails* taught at its national meetings. (2010 - 2013)

- Contributor to 2014 Editions of Standards for Health Services in Jails and Standards for Health Services in Prisons, National Commission on Correctional Health Care. (2013)
- Consultant to the California Department of Corrections and Rehabilitation court-appointed Receiver for medical operations. Projects included:
    - Assessing the Receiver's progress in completing its goal of bringing medical care delivered in the Department to a constitutionally mandated level. (2009)
    - Providing physician leadership to the Telemedicine Program Manager tasked with improving and expanding the statewide use of telemedicine. (2009)
- Conceived, co-designed, led, and instructed in American College of Correctional Physicians and National Commission on Correctional Health Care's Medical Directors Boot Camp (now called Leadership Institute), a national training program for new (Track "101") and more experienced (Track "201") prison and jail medical directors. (2009 - 2012)
- Participated as a member of a nine-person Delphi expert consensus panel convened by Rand Corporation to create a set of correctional health care quality standards. (2009)
- Convened a coalition of jails, Federally Qualified Health Centers, and community mental health centers in ten counties in Washington State to apply for a federal grant to create an electronic network among the participants that will share prescription information for the correctional population as they move among these three venues. (2009 - 2010)
- Participated as a clinical expert in comprehensive assessment of Michigan Department of Corrections as part of a team from the National Commission on Correctional Health Care. (2007)
- Provided consultation to Correctional Medical Services, Inc., St. Louis (now Corizon), on issues related to development of an electronic health record. (2001)
- Reviewed cases of possible professional misconduct for the Office of Professional Medical Conduct of the New York State Department of Health. (1999 – 2001)
- Advised Deputy Commissioner, Indiana State Board of Health, on developing plan to reduce morbidity from chronic diseases using available databases. (1992)
- Provided consultation to Division of General Medicine, University of Nevada at Reno, to help develop a new clinical practice site combining a faculty practice and a supervised resident clinic. (1991)

OLYMPIA FREE CLINIC, OLYMPIA, WASHINGTON **2017 - PRESENT**

Volunteer practitioner providing episodic care at a neighborhood clinic which provides free care to individuals without health insurance until they can find a permanent medical home

OLYMPIA UNION GOSPEL MISSION CLINIC, OLYMPIA, WASHINGTON **2009 – 2014**

Volunteer practitioner providing primary care at a neighborhood clinic which provides free care to individuals without health insurance until they can find a permanent medical home; my own patient panel within the practice focuses on individuals recently released jail and prison.

WASHINGTON STATE DEPARTMENT OF CORRECTIONS **2002 – 2008**

Assistant Secretary for Health Services/Health Services Director, 2005 – 2008
Associate Deputy Secretary for Health Care, 2002 – 2005

Responsible for the medical, mental health, chemical dependency (transiently), and dental care of 15,000 offenders in total confinement. Oversaw an annual operating budget of $110 million and 700 health care staff.

- As the first incumbent ever in this position, ushered the health services division from an operation of 12 staff in headquarters, providing only consultative services to the Department, to an operation with direct authority and responsibility for all departmental health care staff and budget. As part of new organizational structure, created and filled statewide positions of Directors of Nursing, Medicine, Dental, Behavioral Health, Mental Health, Psychiatry, Pharmacy, Operations, and Utilization Management.
- Significantly changed the culture of the practice of correctional health care and the morale of staff by a variety of structural and functional changes, including: ensuring that high ethical standards and excellence in clinical practice were of primordial importance during hiring of professional and supervisory staff; supporting disciplining or career counseling of existing staff where appropriate; implementing an organizational structure such that patient care

decisions were under the final direct authority of a clinician and were designed to ensure that patient needs were met, while respecting and operating within the confines of a custodial system.

- Improved quality of care by centralizing and standardizing health care operations, including: authoring a new Offender Health Plan defining patient benefits based on the Eighth Amendment, case law, and evidence-based medicine; implementing a novel system of utilization management in medical, dental, and mental health, using the medical staffs as real-time peer reviewers; developing a pharmacy procedures manual and creating a Pharmacy and Therapeutics Committee; achieving initial American Correctional Association accreditation for 13 facilities (all with almost perfect scores on first audit); migrating the eight individual pharmacy databases to a single central database.
- Blunted the growth in health care spending without compromising quality of care by a number of interventions, including: better coordination and centralization of contracting with external vendors, including new statewide contracts for hospitalization, laboratory, drug purchasing, radiology, physician recruitment, and agency nursing; implementing a statewide formulary; issuing quarterly operational reports at the state and facility levels.
- Piloted the following projects: direct issuance of over-the-counter medications on demand through inmates stores (commissary), obviating the need for a practitioner visit and prescription; computerized practitioner order entry (CPOE); pill splitting; ER telemedicine.
- Oversaw the health services team that participated variously in pre-design, design, or build phases of five capital projects to build complete new health units.

NEW YORK STATE DEPARTMENT OF CORRECTIONAL SERVICES **2001 – 2002**

Regional Medical Director, Northeast Region, 2001 – 2002

Responsible for clinical oversight of medical services for 14,000 offenders in 14 prisons, including one (already) under court monitoring.

- Oversaw contract with vendor to manage 60-bed regional infirmary and hospice.
- Coordinated activities among the Regional Medical Unit outpatient clinic, the Albany Medical College, and the 13 feeder prisons to provide most of the specialty care for the region.
- Worked with contracting specialists and Emergency Departments to improve access and decrease medical out-trips by increasing the proportion of scheduled and emergency services provided by telemedicine.
- Provided training, advice, and counseling to practitioners and facility health administrators in the region to improve the quality of care delivered.

CORRECTIONAL MEDICAL SERVICES, INC. (now CORIZON) **2000 – 2001**

Regional Medical Director, New York Region, 2000 – 2001

Responsible for clinical management of managed care contract with New York State Department of Correctional Services to provide utilization management services for the northeast and northern regions of New York State and supervision of the 60-bed regional infirmary and hospice.

- Migrated the utilization approval function from one of an anonymous rule-based "black box" to a collaborative evidence-based decision making process between the vendor and front-line clinicians.

MERCY INTERNAL MEDICINE, ALBANY, NEW YORK **1999 – 2000**

Neighborhood three-physician internal medicine group practice.

Primary Care Physician, 1999 – 2000 (6 months)

Provided direct primary care to a panel of community patients during a period of staff shortage.

ALBANY COUNTY CORRECTIONAL FACILITY, ALBANY, NEW YORK **1998 – 1999**

Acting Facility Medical Director, 1998 – 1999

Directed the medical staff of an 800 bed jail and provided direct patient care following the sudden loss of the Medical Director, pending hiring of a permanent replacement. Coordinated care of jail patients in local hospitals. Provided consultation to the Superintendent on improvements to operation and staffing of medical unit and need for privatization.

VETERANS ADMINISTRATION MEDICAL CENTER, ALBANY, NY **1992 – 1998**

Assistant Chief, Medical Service, 1995 – 1998
Chief, Section of General Internal Medicine and Emergency Services, 1992 – 1998

Responsible for operation of the general internal medicine clinics and the Emergency Department.

- Designed and implemented an organizational and physical plant makeover of the general medicine ambulatory care clinic from an episodic-care driven model with practitioners functioning independently supported by minimal nursing involvement, to a continuity-of-care model with integrated physician/mid-level practitioner/registered nurse/licensed practice nurse/practice manager teams.
- Led the design and opening of a new Emergency Department.
- As the VA Section Chief of Albany Medical College's Division of General Internal Medicine, coordinated academic activities of the Division at the VA, including oversight of, and direct teaching in, ambulatory care and inpatient internal medicine rotations for medical students, residents, and fellows. Incorporated medical residents as part of the general internal medicine clinics. Awarded $786,000 Veterans Administration grant ("PRIME I") over four years for development and operation of educational programs for medicine residents and students in allied health professions (management, pharmacy, social work, physician extenders) wishing to study primary care delivery.

ERIE COUNTY HEALTH DEPARTMENT, BUFFALO, NY **1988 – 1990**

Director of Sexually Transmitted Diseases (STD) Services, 1989 – 1990
Staff Physician, STD Clinic, 1988 – 1989
Staff Physician, Lackawanna Community Health Center, 1988 – 1990

Provided leadership and patient care services in the evaluation and treatment of STDs. Successfully reorganized the county's STD services which were suffering from mismanagement and were under public scrutiny. Provided direct patient care services in primary care clinic for underserved neighborhood.

UNION OCCUPATIONAL HEALTH CENTER, BUFFALO, NY **1988 – 1990**

Staff Physician, 1988 – 1990

Provided direct patient care for the evaluation of occupationally-related health disorders.

VETERANS ADMINISTRATION MEDICAL CENTER, BUFFALO, NY **1985 – 1990**

Chief Outpatient Medical Section and Primary Care Clinic, 1986 – 1988
VA Section Head, Division of General Internal Medicine, University of Buffalo, 1986 – 1988

- Developed and implemented a major restructuring of the general medicine ambulatory care clinic to reduce fragmentation of care by introduction of a continuity-of-care model with a physician/nurse team approach.

Medical Director, Anticoagulation Clinic 1986 – 1990
Staff Physician, Emergency Department, 1985 – 1986

FACULTY APPOINTMENTS

2007 – present	Affiliate Assistant Professor, Department of Health Services, School of Public Health, University of Washington
1999 – present	Clinical Professor, Fellowship in Applied Public Health (previously Volunteer Faculty, Preventive Medicine Residency), University at Albany School of Public Health
1996 – 2002	Volunteer Faculty, Office of the Dean of Students, University at Albany
1992 – 2002	Associate Clinical/Associate/Assistant Professor of Medicine, Albany Medical College
1993 – 1997	Clinical Associate Faculty, Graduate Program in Nursing, Sage Graduate School
1990 – 1992	Instructor of Medicine, Indiana University
1985 – 1990	Clinical Assistant Professor of Medicine, University of Buffalo
1982 – 1985	Clinical Assistant Instructor of Medicine, University of Buffalo

OTHER PROFESSIONAL ACTIVITIES

2016 – present	Chair, Education Committee, Academic Consortium on Criminal Justice Health
2016 – present	Member (Prisoner Advocate), Washington State Institutional Review Board
2015 – present	Founding Editorial Board Member, Journal for Evidence-based Practice in Correctional Health, Center for Correctional Health Networks, University of Connecticut
2013 – present	Member, Conference Planning Committee – Medical/Mental Health Track, American Jail Association
2013 – present	Course Faculty, "Health in Prisons" course, Bloomberg School of Public Health, Johns Hopkins University/International Committee of the Red Cross
2013 – present	Member (Prisoner Advocate), Institutional Review Board, University of Washington
2011 – 2012	Member, Education Committee, National Commission on Correctional Health Care
2010	Recipient, Armond Start Award of Excellence, American College of Correctional Physicians
2010	Recipient, (First) Annual Preventive Medicine Faculty Excellence Award, New York State Preventive Medicine Residency Program, University at Albany School of Public Health/New York State Department of Health
2010 – present	Member, International Advisory Board, International Journal of Prison Health
2009 – present	Member, Editorial Board, Journal of Correctional Health Care
2007 – present	Member, National Advisory Committee, COCHS (Community–Oriented Correctional Health Services)
2007 – present	Member, Planning Committee, Annual Academic and Health Policy Conference on Correctional Health, University of Massachusetts Medical School and Commonwealth Medicine Correctional Health Program
2005 – present	Member, American Correctional Association/Washington Correctional Association
2004 – 2006	Member, Board of Directors, American College of Correctional Physicians
2004 – 2006	Member, Fellow's Advisory Committee, University of Washington Robert Wood Johnson Clinical Scholar Program
2004	Member, External Expert Panel to the Surgeon General on the "Call to Action on Correctional Health Care"
2004	Recipient, Excellence in Education Award for excellence in clinical teaching, Family Practice Residency Program, Providence St. Peter Hospital, Olympia, Washington
2003 – present	Faculty Instructor, Critical Appraisal of the Literature Course, Family Practice Residency Program, Providence St. Peter Hospital, Olympia, Washington
2001 – present	Chair/Co-Chair/Member, Education Committee, American College of Correctional Physicians
2000 – present	Member, American College of Correctional Physicians
1999 – present	Faculty Instructor, Critical Appraisal of the Literature Course, Preventive Medicine Residency Program, New York State Department of Health/University at Albany School of Public Health
1999	Co–Chairperson, Education Subcommittee, Workshop Submission Review Committee, Annual Meeting, Society of General Internal Medicine
1997 – 1998	Northeast US Representative, National Association of VA Ambulatory Managers
1996 – 2002	Faculty Mentor, Journal Club, Internal Medicine Residency Program, Albany Medical College
1996 – 2002	Faculty Advisor and Medical Control, 5 Quad Volunteer Ambulance Service, University at Albany
1996	Recipient, Special Recognition for High Quality Workshop Presentation at Annual Meeting, Society of General Internal Medicine
1995 – 1998	Preceptor, MBA Internship, Union College
1995	Member, Quality Assurance/Patient Satisfaction Subcommittee, VA National Curriculum Development Committee for Implementation of Primary Care Practices, Veterans Administration
1994 – 1998	Member, Residency Advisory Committee, Preventive Medicine Residency, New York State Department of Health/School of Public Health, University at Albany
1993	Chairperson, Dean's Task Force on Primary Care, Albany Medical College
1993	Member, Task Group to develop curriculum for Comprehensive Care Case Study Course for Years 1 through 4, Albany Medical College
1988 – 1989	Instructor, Teaching Effectiveness Program for New Housestaff, Graduate Medical Dental Education Consortium of Buffalo

1987 – 1990	Member, Human Studies Review Committee, School of Allied Health Professions, University of Buffalo
1987 – 1989	Chairman, Subcommittee on Hospital Management Issues and Member, Subcommittee on Teaching of Ad Hoc Committee to Plan Incoming Residents Training Week, Graduate Medical Dental Education Consortium of Buffalo
1987 – 1988	Member, Dean's Ad Hoc Committee to Reorganize "Introduction to Clinical Medicine" Course
1987	Preceptor, Nurse Practitioner Training Program, School of Nursing, University of Buffalo
1986 – 1988	Course Coordinator, Simulation Models Section of Physical Diagnosis Course, University of Buffalo
1986 – 1988	Chairman, Service Chiefs' Continuity of Care Task Force, Veterans Administration Medical Center, Buffalo, New York
1986	Recipient, Letter of Commendation, House Staff Teaching, University of Buffalo
1979 – 1980	Laboratory Teaching Assistant in Gross Anatomy, Université Libre de Bruxelles, Brussels, Belgium
1973 – 1975	Instructor and Instructor Trainer of First Aid, American National Red Cross
1972 – 1975	Chief of Service or Assistant Chief of Operations, 5 Quad Volunteer Ambulance Service, University at Albany.
1972 – 1975	Emergency Medical Technician Instructor and Course Coordinator, New York State Department of Health, Bureau of Emergency Medical Services

EDUCATION

University at Albany, College of Arts and Sciences, Albany; B.S., 1975 (Biology)

University at Albany, School of Education, Albany; AMST (Albany Math and Science Teachers) Teacher Education Program, 1975

Université Libre de Bruxelles, Faculté de Medecine, Brussels, Belgium; Candidature en Sciences Medicales, 1980

University at Buffalo, School of Medicine, Buffalo; M.D., 1982

University at Buffalo Affiliated Hospitals, Buffalo; Residency in Internal Medicine, 1985

Regenstrief Institute of Indiana University, and Richard L. Roudebush Veterans Administration Medical Center; VA/NIH Fellowship in Primary Care Medicine and Health Services Research, 1992

Indiana University, School of Health, Physical Education, and Recreation, Bloomington; M.P.H., 1992

New York Academy of Medicine, New York; Mini-fellowship Teaching Evidence-Based Medicine, 1999

CERTIFICATION

Provisional Teaching Certification for Biology, Chemistry, Physics, Grades 7–12, New York State Department of Education (expired), 1975

Diplomate, National Board of Medical Examiners, 1983

Diplomate, American Board of Internal Medicine, 1985

Fellow, American College of Physicians, 1991

License: Washington (#MD00041843, active); New York (#158327, inactive); Indiana (#01038490, inactive)

REVIEWER

2015 – present	Journal for Evidence-based Practice in Correctional Health
2015 – present	PLOS ONE
2001 – present	Journal of Correctional Health Care
2011 – present	American Journal of Public Health
2010 – present	Langeloth Foundation (grants)
2001 – 2004	Journal of General Internal Medicine
1996	Abstract Committee, Health Services Research Subcommittee, Annual Meeting, Society of General Internal Medicine
1990 – 1992	Medical Care

WORKSHOPS, SEMINARS, PRESENTATIONS, INVITED LECTURES

Executive Manager Program in Correctional Health. 4-day training for custody/health care teams from jails and prisons on designing safe and efficient health care systems. National Institute for Corrections Training Facility, Aurora, Colorado, and other venues in Washington State. Periodically, 2014 – present.

Medical Ethics in Corrections. Criminal Justice 441 – Professionalism and Ethical Issues in Criminal Justice. University of Washington, Tacoma. Recurring seminar, 2012 – present

Medical Aspects of Deaths in ICE Custody. Briefing for U.S. Senate staffers, Human Rights Watch. Washington, D.C. 2018

Jails' Role in Managing the Opioid Epidemic. Panelist. Washington Association of Sheriffs and Police Chiefs Annual Conference. Spokane, Washington. 2018

Contract Prisons and Contract Health Care: What Do We Know? Behind Bars: Ethics and Human Rights in U.S. Prisons Conference. Center for Bioethics – Harvard Medical School/Human Rights Program – Harvard Law School. Boston, Massachusetts. 2017

Health Care Workers in Prisons. (With Dr. J. Wesley Boyd) Behind Bars: Ethics and Human Rights in U.S. Prisons Conference. Center for Bioethics – Harvard Medical School/Human Rights Program – Harvard Law School. Boston, Massachusetts. 2017

Prisons, Jails and Medical Ethics: Rubber, Meet Road. Grand Rounds. Touro Medical College. New York, New York. 2017

Jail Medical Doesn't Have to Keep You Up at Night – National Standards, Risks, and Remedies. Washington Association of Counties. SeaTac, Washington. 2017

Prison and Jail Health Care: What do you need to know? Grand Rounds. Providence/St. Peters Medical Center. Olympia, Washington. 2017

Prison Health Leadership Conference. 2-Day workshop. International Corrections and Prisons Association/African Correctional Services Association/Namibian Corrections Service. Omaruru, Namibia. 2016; 2018

What Would YOU Do? Navigating Medical Ethical Dilemmas. Spring Conference. National Commission on Correctional Health Care. Nashville, Tennessee. 2016

Improving Patient Safety. Spring Provider Meeting. Oregon Department of Corrections. Salem, Oregon 2016

A View from the Inside: The Challenges and Opportunities Conducting Cardiovascular Research in Jails and Prisons. Workshop on Cardiovascular Diseases in the Inmate and Released Prison Population. The National Heart, Lung, and Blood Institute. Bethesda, Maryland. 2016

Why it Matters: Advocacy and Policies to Support Health Communities after Incarceration. At the Nexus of Correctional Health and Public Health: Policies and Practice session. Panelist. American Public Health Association Annual Meeting. Chicago, Illinois. 2015

Hot Topics in Correctional Health Care. Presented with Dr. Donald Kern. American Jail Association Annual Meeting. Charlotte, North Carolina. 2015

Turning Sick Call Upside Down. Annual Conference. National Commission on Correctional Health Care. Dallas, Texas, 2015.

Diagnostic Maneuvers You May Have Missed in Nursing School. Annual Conference. National Commission on Correctional Health Care. Dallas, Texas. 2015

The Challenges of Hunger Strikes: What Should We Do? What Shouldn't We Do? Annual Conference. National Commission on Correctional Health Care. Dallas, Texas. 2015

Practical and Ethical Approaches to Managing Hunger Strikes. Annual Practitioners' Conference. Washington Department of Corrections. Tacoma, Washington. 2015

Contracting for Health Services: Should I, and if so, how? American Jail Association Annual Meeting. Dallas, Texas. 2014

Hunger Strikes: What should the Society of Correctional Physician's position be? With Allen S, May J, Ritter S. American College of Correctional Physicians (Formerly Society of Correctional Physicians) Annual Meeting. Nashville, Tennessee. 2013

Addressing Conflict between Medical and Security: an Ethics Perspective. International Corrections and Prison Association Annual Meeting. Colorado Springs, Colorado. 2013

Patient Safety and 'Right Using' Nurses. Keynote address. Annual Conference. American Correctional Health Services Association. Philadelphia, Pennsylvania. 2013

Patient Safety: Overuse, underuse, and misuse…of nurses. Keynote address. Essentials of Correctional Health Care conference. Salt Lake City, Utah. 2012

The ethics of providing healthcare to prisoners-An International Perspective. Global Health Seminar Series. Department of Global Health, University of Washington, Seattle, Washington. 2012

Recovery, Not Recidivism: Strategies for Helping People Who are Incarcerated. Panelist. NAMI Annual Meeting, Seattle, Washington, 2012

Ethics and HIV Workshop. HIV/AIDS Care in the Correctional Setting Conference, Northwest AIDS Education and Training Center. Salem, Oregon. 2011

Ethics and HIV Workshop. HIV/AIDS Care in the Correctional Setting Conference, Northwest AIDS Education and Training Center. Spokane, Washington. 2011

Patient Safety: Raising the Bar in Correctional Health Care. With Dr. Sharen Barboza. National Commission on Correctional Health Care Mid-Year Meeting, Nashville, Tennessee. 2010

Patient Safety: Raising the Bar in Correctional Health Care. American Correctional Health Services Association, Annual Meeting, Portland, Oregon. 2010

Achieving Quality Care in a Tough Economy. National Commission on Correctional Health Care Mid-Year Meeting, Nashville, Tennessee, 2010 (Co-presented with Rick Morse and Helena Kim, PharmD.)

Involuntary Psychotropic Administration: The Harper Solution. With Dr. Bruce Gage. American Correctional Health Services Association, Annual Meeting, Portland, Oregon. 2010

Evidence Based Decision Making for Non-Clinical Correctional Administrators. American Correctional Association 139th Congress, Nashville, Tennessee. 2009

Death Penalty Debate. Panelist. Seattle University School of Law, Seattle, Washington. 2009

The Patient Handoff – From Custody to the Community. Washington Free Clinic Association, Annual Meeting, Olympia, Washington. Lacey, Washington. 2009

Balancing Patient Advocacy with Fiscal Restraint and Patient Litigation. National Commission on Correctional Health Care and American College of Correctional Physicians "Medical Directors Boot Camp," Seattle, Washington. 2009

Staff Management. National Commission on Correctional Health Care and American College of Correctional Physicians "Medical Directors Boot Camp," Seattle, Washington. 2009

Management Dilemmas in Corrections: Boots and Bottom Bunks. Annual Meeting, American College of Correctional Physicians, Chicago, Illinois. 2008

Public Health and Correctional Health Care. Masters Program in community–based population focused management – Populations at risk, Washington State University, Spokane, Washington. 2008

Managing the Geriatric Population. Panelist. State Medical Directors' Meeting, American Corrections Association, Alexandria, Virginia. 2007

I Want to do my own Skin Biopsies. Annual Meeting, American College of Correctional Physicians, New Orleans, Louisiana. 2005

Corrections Quick Topics. Annual Meeting, American College of Correctional Physicians. Austin, Texas. 2003

Evidence Based Medicine in Correctional Health Care. Annual Meeting, National Commission on Correctional Health Care. Austin, Texas. 2003

Evidence Based Medicine. Excellence at Work Conference, Empire State Advantage. Albany, New York. 2002

Evidence Based Medicine, Outcomes Research, and Health Care Organizations. National Clinical Advisory Group, Integrail, Inc., Albany, New York. 2002

Evidence Based Medicine. With Dr. LK Hohmann. The Empire State Advantage, Annual Excellence at Work Conference: Leading and Managing for Organizational Excellence, Albany, New York. 2002

Taking the Mystery out of Evidence Based Medicine: Providing Useful Answers for Clinicians and Patients. Breakfast Series, Institute for the Advancement of Health Care Management, School of Business, University at Albany, Albany, New York. 2001

Diagnosis and Management of Male Erectile Dysfunction – A Goal–Oriented Approach. Society of General Internal Medicine National Meeting, San Francisco, California. 1999

Study Design and Critical Appraisal of the Literature. Graduate Medical Education Lecture Series for all housestaff, Albany Medical College, Albany, New York. 1999

Male Impotence: Its Diagnosis and Treatment in the Era of Sildenafil. 4th Annual CME Day, Alumni Association of the Albany–Hudson Valley Physician Assistant Program, Albany, New York. 1998

Models For Measuring Physician Productivity. Panelist. National Association of VA Ambulatory Managers National Meeting, Memphis, Tennessee. 1997

Introduction to Male Erectile Dysfunction and the Role of Sildenafil in Treatment. Northeast Regional Meeting Pfizer Sales Representatives, Manchester Center, Vermont. 1997

Male Erectile Dysfunction. Topics in Urology, A Seminar for Primary Healthcare Providers, Bassett Healthcare, Cooperstown, New York. 1997

Evaluation and Treatment of the Patient with Impotence: A Practical Primer for General Internists. Society of General Internal Medicine National Meeting, Washington D.C. 1996

Impotence: An Update. Department of Medicine Grand Rounds, Albany Medical College, Albany, New York. 1996

Diabetes for the EMT First–Responder. Five Quad Volunteer Ambulance, University at Albany. Albany, New York. 1996

Impotence: An Approach for Internists. Medicine Grand Rounds, St. Mary's Hospital, Rochester, New York. 1994

Male Impotence. Common Problems in Primary Care Precourse. American College of Physicians National Meeting, Miami, Florida. 1994

Patient Motivation: A Key to Success. Tuberculosis and HIV: A Time for Teamwork. AIDS Program, Bureau of Tuberculosis Control – New York State Department of Health and Albany Medical College, Albany, New York. 1994

Recognizing and Treating Impotence. Department of Medicine Grand Rounds, Albany Medical College, Albany, New York. 1992

Medical Decision Making: A Primer on Decision Analysis. Faculty Research Seminar, Department of Family Practice, Indiana University, Indianapolis, Indiana. 1992

Effective Presentation of Public Health Data. Bureau of Communicable Diseases, Indiana State Board of Health, Indianapolis, Indiana. 1991

Impotence: An Approach for Internists. Housestaff Conference, Department of Medicine, Indiana University, Indianapolis, Indiana. 1991

Using Electronic Databases to Search the Medical Literature. NIH/VA Fellows Program, Indiana University, Indianapolis, Indiana. 1991

Study Designs Used in Epidemiology. Ambulatory Care Block Rotation. Department of Medicine, Indiana University, Indianapolis, Indiana. 1991

Effective Use of Slides in a Short Scientific Presentation. Housestaff Conference, Department of Medicine, Indiana University, Indianapolis, Indiana. 1991

Impotence: A Rational and Practical Approach to Diagnosis and Treatment for the General Internist. Society of General Internal Medicine National Meeting, Washington D.C. 1991

Nirvana and Audio–Visual Aids. With Dr. RM Lubitz. Society of General Internal Medicine, Midwest Regional Meeting, Chicago. 1991

New Perspectives in the Management of Hypercholesterolemia. Medical Staff, West Seneca Developmental Center, West Seneca, New York. 1989

Effective Use of Audio–Visual Aids. Nurse Educators, American Diabetes Association, Western New York Chapter, Buffalo, New York. 1989

Management of Diabetics in the Custodial Care Setting. Medical Staff, West Seneca Developmental Center, West Seneca, New York, 1989

Effective Use of Audio–Visuals in Diabetes Peer and Patient Education. American Association of Diabetic Educators, Western New York Chapter, Buffalo, New York. 1989

Pathophysiology, Diagnosis and Care of Diabetes. Nurse Practitioner Training Program, School of Nursing, University of Buffalo, Buffalo, New York. 1989

Techniques of Large Group Presentations to Medical Audiences – Use of Audio–Visuals. New Housestaff Training Program, Graduate Medical Dental Education Consortium of Buffalo, Buffalo, New York. 1988

PUBLICATIONS/ABSTRACTS

Grande L, **Stern M.** *Providing Medication to Treat Opioid Use Disorder in Washington State Jails.* Study conducted for Washington State Department of Social and Health Services under Contract 1731-18409. 2018.

Stern MF, Newlin N. *Epicenter of the Epidemic: Opioids and Jails.* American Jails 2018 32(2):16-18

Stern MF. *A nurse is a nurse is a nurse…NOT!* Guest Editorial, American Jails 2018 32(2):4,68

Wang EA, Redmond N, Dennison Himmelfarb CR, Pettit B, **Stern M**, Chen J, Shero S, Iturriaga E, Sorlie P, Diez Roux AV. *Cardiovascular Disease in Incarcerated Populations*. Journal of the American College of Cardiology 2017 69(24):2967-76

Mitchell A, Reichberg T, Randall J, Aziz-Bose R, Ferguson W, **Stern M.** *Criminal Justice Health Digital Curriculum*. Poster, Annual Academic and Health Policy Conference on Correctional Health, Atlanta, Georgia, March, 2017

Stern MF. *Patient Safety (White Paper)*. Guidelines, Management Tools, White Papers, National Commission on Correctional Health Care. http://www.ncchc.org/filebin/Resources/Patient-Safety-2016.pdf. June, 2016

Binswanger IA, **Stern MF**, Yamashita TE, Mueller SR, Baggett TP, Blatchford PJ. *Clinical risk factors for death after release from prison in Washington State: a nested case control study.* Addiction 2015 Oct 17

Stern MF. Op-Ed on Lethal Injections. The Guardian 2014 Aug 6

Stern MF. *American College of Correctional Physicians Calls for Caution Placing Mentally Ill in Segregation: An Important Band-Aid*. Guest Editorial. Journal of Correctional Health Care 2014 Apr; 20(2):92-94

Binswanger I, Blatchford PJ, Mueller SR, **Stern MF**. *Mortality After Prison Release: Opioid Overdose and Other Causes of Death, Risk Factors, and Time Trends From 1999 to 2009.* Annals of Internal Medicine 2013 Nov; 159(9):592-600

Williams B, **Stern MF,** Mellow J, Safer M, Greifinger RB. *Aging in Correctional Custody: Setting a policy agenda for older prisoner health care.* American Journal of Public Health 2012 Aug; 102(8):1475-1481

Binswanger I, Blatchford PJ, Yamashita TE, **Stern MF.** *Drug-Related Risk Factors for Death after Release from Prison: A Nested Case Control Study*. Oral Presentation, University of Massachusetts 4th Annual Academic and Health Policy Conference on Correctional Healthcare, Boston, Massachusetts, March, 2011

Binswanger I, Blatchford PJ, Forsyth S, **Stern MF**, Kinner SA. *Death Related to Infectious Disease in Ex-Prisoners: An International Comparative Study*. Oral Presentation, University of Massachusetts 4th Annual Academic and Health Policy Conference on Correctional Healthcare, Boston, Massachusetts, March, 2011

Binswanger I, Lindsay R, **Stern MF**, Blatchford P. *Risk Factors for All-Cause, Overdose and Early Deaths after Release from Prison in Washington State Drug and Alcohol Dependence.* Drug and Alcohol Dependence Aug 1 2011;117(1):1-6

Stern MF, Greifinger RB, Mellow J. *Patient Safety: Moving the Bar in Prison Health Care Standards.* American Journal of Public Health November 2010;100(11):2103-2110

Strick LB, Saucerman G, Schlatter C, Newsom L, **Stern MF**. *Implementation of Opt-Out HIV testing in the Washington State Department of Corrections*. Poster Presentation, National Commission on Correctional Health Care Annual Meeting, Orlando, Florida, October, 2009

Binswanger IA, Blatchford P, **Stern MF**. *Risk Factors for Death After Release from Prison*. Society for General Internal Medicine 32nd Annual Meeting; Miami: Journal of General Internal Medicine; April 2009. p. S164-S95

Stern MF. Force Feeding for Hunger Strikes – One More Step. CorrDocs Winter 2009;12(1):2

Binswanger I, **Stern MF**, Deyo RA, Heagerty PJ, Cheadle A, Elmore JG, Koepsell TD. *Release from Prison – A High Risk of Death for Former Inmates*. New England Journal of Medicine 2007 Jan 11;356(2):157–165

Stern MF, Hilliard T, Kelm C, Anderson E. *Epidemiology of Hepatitis C Infection in the Washington State Department of Corrections.* Poster Presentation, CDC/NIH *ad hoc* Conference on Management of Hepatitis C in Prisons, San Antonio, Texas, January, 2003

Phelps KR, **Stern M**, Slingerland A, Heravi M, Strogatz DS, Haqqie SS. *Metabolic and skeletal effects of low and high doses of calcium acetate in patients with preterminal chronic renal failure.* Am J Nephrol 2002 Sep–Dec;22(5–6):445–54

Goldberg L, **Stern MF,** Posner DS. *Comparative Epidemiology of Erectile Dysfunction in Gay Men*. Oral Presentation, International Society for Impotence Research Meeting, Amsterdam, The Netherlands, August 1998. Int J Impot Res. 1998;10(S3):S41 [also presented as oral abstract Annual Meeting, Society for the Study of Impotence, Boston, Massachusetts, October, 1999. Int J Impot Res. 1999;10(S1):S65]

Stern MF. *Erectile Dysfunction in Older Men.* Topics in Geriatric Rehab 12(4):40–52, 1997. [republished in Geriatric Patient Education Resource Manual, Supplement. Aspen Reference Group, Eds. Aspen Publishers, Inc., 1998]

Stern MF, Wulfert E, Barada J, Mulchahy JJ, Korenman SG. *An Outcomes–Oriented Approach to the Primary Care Evaluation and Management of Erectile Dysfunction.* J Clin Outcomes Management 5(2):36–56, 1998

Fihn SD, Callahan CM, Martin D, et al.; for the **National Consortium of Anticoagulation Clinics**.* *The Risk for and Severity of Bleeding Complications in Elderly Patients Treated with Warfarin.* Ann Int Med. 1996;124:970–979

Fihn SD, McDonell M, Martin D, et al.; for the **Warfarin Optimized Outpatient Follow–up Study Group**.* *Risk Factors for Complications of Chronic Anticoagulation*. Ann Int Med. 1993;118:511–520. (*While involved in the original proposal development and project execution, I was no longer part of the group at the time of this publication)

Stern MF, Dittus RS, Birkhead G, Huber R, Schwartz J, Morse D. *Cost–Effectiveness of Hepatitis B Immunization Strategies for High Risk People*. Oral Presentation, Society of General Internal Medicine National Meeting, Washington, D.C., May 1992. Clin Res 1992

Fihn SD, McDonell MB, Vermes D, Martin D, Kent DL, Henikoff JG, and the **Warfarin Outpatient Follow–up Study Group**. *Optimal Scheduling of Patients Taking Warfarin. A Multicenter Randomized Trial.* Oral Presentation, Society of General Internal Medicine National Meeting, Washington, D.C., May 1992. Clin Res 1992

Fihn SD, McDonnell MB, Vermes D, Kent DL, Henikoff JG, and the **Warfarin Anticoagulation Study Group**. *Risk Factors for Complications During Chronic Anticoagulation.* Poster Presentation, Society of General Internal Medicine National Meeting, Seattle, May 1991

Pristach CA, Donoghue GD, Sarkin R, Wargula C, Doerr R, Opila D, **Stern M**, Single G. *A Multidisciplinary Program to Improve the Teaching Skills of Incoming Housestaff.* Acad Med. 1991;66(3):172–174

Stern MF. *Diagnosing Chlamydia trachomatis and Neisseria gonorrhea Infections.* (letter) J Gen Intern Med. 1991;6:183

Stern MF, Fitzgerald JF, Dittus RS, Tierney WM, Overhage JM. *Office Visits and Outcomes of Care: Does Frequency Matter?* Poster Presentation, Society of General Internal Medicine Annual Meeting, Seattle, May 1991. Clin Res 1991;39:610A

Stern MF. *Cobalamin Deficiency and Red Blood Cell Volume Distribution Width.* (letter) Arch Intern Med. 1990;150:910

Stern M, Steinbach B. *Hypodermic Needle Embolization to the Heart.* NY State J Med. 1990;90(7):368–371

Stern MF, Birkhead G, Huber R, Schwartz J, Morse D. *Feasibility of Hepatitis B Immunization in an STD Clinic.* Oral Presentation, American Public Health Association Annual Meeting, Atlanta, November 1990

EXPERT TESTIMONY

Dockery, *et al.* v. Hall *et al.* US District Court for the Southern District of Mississippi Northern Division, 2018 (trial)

Benton v. Correct Care Solutions, *et al.* US District Court for the District of Maryland, 2018 (deposition)

Pajas v. County of Monterey, *et al.* US District Court Northern District of California, 2018 (deposition)

Walter v. Correctional Healthcare Companies, *et al*. US District Court, District of Colorado, 2017 (deposition)

Winkler v. Madison County, Kentucky, *et al*. US District Court, Eastern District of Kentucky, Central Division at Lexington, 2016 (deposition)

US v. Miami-Dade County, *et al.* US District Court, Southern District of Florida, periodically 2014 - 2016

Rosemary Saffioti v. Snohomish County *et al.* US District Court Western District of Washington at Seattle, 2015 (deposition)

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